Extended Phase 1 Habitat Survey of land to the east of Saffron Walden, Essex, CB10 2JP





First Environment Consultants Ltd

11th September 2013

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SUMMARY

In early September 2013, on land to the east of Saffron Walden in Essex, First Environment Limited was instructed to carry out an Extended Phase 1 Habitat Survey.

This was undertaken to determine the presence of any important habitats or species which might be impacted on by a proposed development.

A search of ecological data for the area was carried out, this revealing a number of records of European Protected Species, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species within a 2.0 km radius of the site.

From the site survey itself there were single records of Brown Hare *Lepus europaeus* and Song Thrush *Turdus philomelos*. Both these species feature in the Essex Biodiversity Project Action Plans.

In addition, there were over 40 records of bats from the study area, including Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *P. pygmaeus*, Brown Long-eared Bat *Plecotus auritus*, Natterer's Bat *Myotis nattereri* and Serotine *Eptesicus serotinus*, as well as undetermined species. The closest record to the site was of a single Natterer's Bat noted approximately 200 m to the northwest of the site boundary in 2003.

One record of Badger *Meles meles* was provided for the desk study area. This was of a sett approximately 200m to the east of the site, dating from 2005. There was also a record of Red Squirrel *Sciurus vulgaris*, from a location in a suburban area of Saffron Walden, approximately 1.3 km to the southwest of the site. The record related to an isolated re-introduction of a small number of Red Squirrels carried out in Saffron Walden in 2005. However the population is now believed to have died out.

There was only one reptile record, this of a Slow-worm *Salix fragilis* approximately 1.8 km to the southeast of the site and dating from 2004. However, there were seven records of Great Crested Newts *Triturus cristatus*, although the closest of these originated from a location approximately 1.4 km to the northeast of the site dating from 1998.

Notable plant records were present, including Crested Cow-wheat *Melampyrum cristatum* and Oxlip *Primula elatior*, both of which are Priority Species in the UKBAP.

Within the 2.0 km search zone was 'The Saffron Walden Living Landscapes Area' which has great importance for wildlife, conservation, landscape and public enjoyment of the countryside reasons.

It contains 10 Local Wildlife Sites (LWS), which are in the middle of the Essex Living Landscapes Oxlips Woods zone. The application site also lies within the same zone (connecting corridor), although the closest of the LWS is Pounce Wood, located approximately 250 metres to the northeast of the site at grid reference TL 559387. The LWS comprises a patch of ancient woodland that has been almost entirely replanted with Beech, Spruce and other conifers.

A further 13 Local Wildlife Sites are located within the desk study area, the majority of which are ancient woodlands, with a small number of other areas designated for species rich road verges and other habitats such as streams and chalk grasslands.

Other non-statutory areas located within 2.0 km of the site include five areas of woodland listed on Natural England's Inventory of Ancient Woodland. The closest to the site is Pounce Wood LWS described above.

The LWS are hugely important individually, but much more so as part of a wider high landscape value area, which has retained a fair amount of wildlife rich habitats in the farmland areas, as well as in the designated wildlife sites.

The LWS have been recognised for their chalky grassland flora including the nationally scarce plant Crested Cow-wheat, the Essex Red Data Listed Wild Liquorice *Astragalus glycyphyllos*, and the locally common Oxlip. Other species include Common Spotted Orchid *Dactylorhiza fuchsii*, Greater Knapweed *Centaurea scabiosa*, Kidney Vetch *Anthyllis vulneraria*, and Narrow-leaved Everlasting-pea *Lathyrus sylvestris*.

The rich plant life extends to the woodlands here, which have some has some wetter and marshy areas. Wet woodland is a national priority for conservation. The nationally scarce Wood Barley *Hordelymus europaeus* has been recorded, though not recently seen.

To the northeast lay a single statutory site; Hales and Shadwell Woods Site of Special Scientific Interest (SSSI). Unit 1 (Hales Wood) is right on the edge of the 2.0 km zone, and Unit 2 (Shadwell Wood – also an Essex Wildlife Trust Site) is some 3.0 km away. Seven species of orchid have been recorded at the site including Greater Butterfly-orchid *Platanthera chlorantha* and Bird's-nest Orchid *Neottianidus-avis*. Other species include Bluebell *Hyacinthoides non-scripta*, Oxlip and Herb Paris *Paris quadrifolia*.

There is indirect connectivity via the SSSI and the Essex Living Landscapes Oxlip Woods Zone to the application site. However the SSSI and Oxlips Wood Zone are separated from the application site by intervening land use, including main and local roads, in particular the B1053 Radwinter Road, and arable fields. It is felt therefore, that the SSSI and LWS will not be impacted upon by the proposed development. The Extended Phase 1 visit took place on 11th September 2013, in cool, cloudy and mostly dry conditions, with a fresh wind which eased to light.

The site was large in extent (approximately 100 acres) and comprised mostly arable land under continuous cultivation (over 95% of area), with a number of species poor intact hedgerows, many of which were boundaries. Three hedgerows did cross the site, one intact and two defunct. Three shallow dry ditches also ran along sections of intact hedgerow. Some boundary hedgerows had trees along their length, mostly broad-leaved.

A northeast section of the site contained a relatively small area of poor semiimproved grassland with patches of tall ruderal vegetation and scrub, and some scattered broad-leaved trees.

No natural or man-made boundaries existed across much of the southern or parts of the eastern sides of the site.

Within the boundaries there were no buildings and structures, nor any still or running water.

The cultivated land was species poor for plants. The intact hedgerows were also species poor with trees such as Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Elder *Sambucus nigra*, Lilac *Syringa vulgaris* and Bramble *Rubus fruticosus* predominating. Along these intact hedgerows a number of common plant species were noted e.g. Common Toadflax *Linaria vulgaris*, Cow Parsley *Anthriscus sylvestris*, Red Dead Nettle *Lamium purpureum*, and Field Bindweed *Convolvulus arvensis*, plus common grasses.

The poor semi-improved grassland and tall ruderal vegetation contained a small range of forbs such as Fat Hen *Chenopodium album*, Common Nettle *Urtica dioica*, Broad-leaved Dock *Rumex obtusifolius*, and Lesser Knapweed or Hardhead *Centaurea nigra*, plus common grasses.

Scattered trees here included False Acacia *Robinia pseudoacacia* and Silver Birch *Betula pendula*, whilst scattered scrub included Elder and Hawthorn overgrown with Bramble in places. Some trees close to the west boundary fence overhung the site, e.g. Horse Chestnut *Aesculus hippocastanum*.

Scattered trees elsewhere were along hedgerows, and included Ash *Fraxinus* excelsior, Sycamore Acer pseudoplatanus, Field Maple A. campestre, Elm Ulmus

procera and White Poplar Populus alba, with many being along the western boundary.

Several trees also existed in a large wooded garden very close to the site boundary, including Sycamore, Horse Chestnut and Silver Birch, the latter within 2.0 metres of the site. Some of these trees had cavities in the main trunks.

The defunct hedgerows were dominated by Blackthorn with some other common species e.g. Hawthorn, Dog Rose *Rosa canina* and Field Maple. Typical plants included Common Nettle, Fat Hen, Dovesfoot Cranesbill *Geranium molle* and Spear Thistle *Cirsium vulgare*, plus common grasses.

The site was accessed via a small metalled road south of the B1053 going east out of Saffron Walden. This road divided at a T-junction after the first 100 metres. The metalled roads were bordered to a large extent by lengths of low wooden fencing with scattered bushes and strips of improved grassland. Typical species here were Dogwood *Cornus sanguinea*, Old Man's Beard (Traveller's Joy) *Clematis vitalba*, Ribwort Plantain *Plantago lanceolata*, and Rosebay Willowherb *Epilobium angustifolium*.

Strips of bushes and trees had been planted to screen a Tesco Superstore adjoining the northwestern part of the site. On three boundaries vegetation had grown through or over the boundary fences. Examples of species here were Ash, Pedunculate Oak *Quercus robur*, and Beech *Fagus sylvatica*. There were no mature trees and all were at least 0.5 metres outside the boundary. The vegetation at the field edges here was species poor.

No rare vascular plants were found, and all species recorded were common and widespread. There were no invasive species.

A total of 30 species of birds were observed, of which five were Species of High Conservation Concern (RSPB Red list); Starling *Sturnus vulgaris*, Song Thrush *Turdus philomelos*, House Sparrow *Passer domesticus*, Linnet *Carduelis cannabina* and Yellowhammer *Emberiza citronella*. A further six species were of Medium Conservation Concern (RSPB Amber list); Kestrel *Falco tinnunculus*, Lesser Blackbacked Gull *Larus fuscus*, Swallow *Hirundo rustica*, Dunnock *Prunella modularis*, Meadow Pipit *Anthus pratensis* and Bullfinch *Pyrrhula pyrrhula*. All the rest were Species of Low Conservation Concern (RSPB Green list).

A number of the birds were flying over the site, including Lesser Black-backed Gull, Pied Wagtail *Motacilla alba*, Linnet and Yellowhammer. Others were foraging along the hedgerows or feeding in the fields including Starling, Song Thrush, House Sparrow, Meadow Pipit and Bullfinch. Over 30 Blue Tits *Cyanistes caeruleus* and 10 Long-tailed Tits *Aegithalos caudatus* were recorded feeding along one hedgerow crossing the site.

A nest of a Woodpigeon *Columba palumbus* was found with a recently fledged juvenile close by. There was no other evidence of birds nesting on the site, although the survey was carried out after the breeding season for most bird species. In addition it was difficult to locate bird's nests due to the dense leaf cover on trees and bushes.

Nevertheless, since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the period 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species.

The proposed development could lead to the loss of the potential bird nesting sites, although there is an abundance of suitable habitat for birds in the surrounding area, and it is very likely that the boundary hedgerows and trees will remain, to separate and screen the site from roads and neighbouring development.

It is unclear whether any of the three hedgerows crossing the site will remain intact. If not there would be a significant loss of potential bird nesting sites. Furthermore, the presence of ground nesting birds in the breeding season cannot be ruled out.

There was a dead Silver Birch and a Horse Chestnut just behind a boundary hedge next to the main access road. These supported features including decay cavities and holes that were considered potentially suitable for bat roosting and/or hibernation. The decay cavities were only 1.0 to 2.0 metres beyond the site boundary.

Overall the site was thought to be of low to medium value to foraging or commuting bats, as it was mostly cultivated land, although the hedgerows and scattered trees did provide some cover.

There were no signs of Badger activity. However both Brown Hare and Rabbit *Oryctolagus cuniculus* were observed. Active Rabbit burrows were also noted along two hedgerows.

There was a medium sized pond to the rear of Shire Hill Farm, some 250 metres south of the application site. This contained fish, and a Grey Heron *Ardea cinerea* was seen (a regular visitor *pers comms*), whilst ornamental wildfowl were also present. The water quality was poor, with no surface or sub-aquatic vegetation apparent. Overall the pond was relatively open.

Given the nature of the pond, the population of fish, the resident wildfowl and use by herons, it was considered to be unsuitable for breeding Great Crested Newts.

It is understood that the pond had recently been surveyed for Great Created Newts and the same conclusion reached. However, there was excellent foraging habitat for amphibians immediately around the ponds, with an abundance of refugia and hibernacula, so even if animals were present, it is thought unlikely that they would venture onto the arable fields.

There was another small dry pond about 400 metres southeast of the site, in the middle of cultivated land, with no still or running water in the vicinity. It was considered unsuitable for Great Crested Newts.

Given the above, Habitat Suitability Scores (HSI) for Great Crested Newts were not applied to either pond.

The northeastern extremity of the site contained some potentially suitable refugia and hibernacula for reptiles and amphibians, and there were some suitable basking areas, with foraging opportunities. There were piles of partially rotting timber on the ground, some rubble piles and concrete hardstanding, as well as an old oil tank surrounded by tall ruderal vegetation. These could all potentially harbour amphibians or reptiles.

As a precaution it is recommended that such items are removed and/or dismantled by hand in case a common amphibian or small mammal is present. Similar habitat adjoined this area, with large wooded garden and derelict buildings with overgrown land. Elsewhere, as the land was mainly cultivated with some hedgerows, there were no suitable refugia or hibernacula for reptiles or amphibians, no suitable basking areas, with limited foraging opportunities.

It was also possible to assess the potential importance of the habitats within the application site to invertebrates. It was concluded that there was generally low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches. Taking all the evidence into account, the proposed development of land to the east of Saffron Walden is unlikely to impact significantly on wildlife and will not lead to a significant loss of habitat in the area.

1. INTRODUCTION

1.1 Background and survey objectives

In early September 2013, on land to the east of Saffron Walden in Essex, First Environment Limited was instructed to carry out an Extended Phase 1 Habitat Survey.

This was undertaken to determine the presence of any important habitats or species which might be impacted on by a proposed development.

A search of ecological data for the area was carried out, this revealing a number of records of European Protected Species, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species within a 2.0 km radius of the site.

1.2 Site description

The site was large in extent (approximately 100 acres), and comprised mostly arable land under continuous cultivation (over 95% of site area), with a number of species poor intact hedgerows, many of which acted as boundaries (Figs. 1 and 2). However, three hedgerows crossed the site, one intact and two defunct.



Fig. 1 Looking NE across W side of site Fig. 2 Looking NE across E side of site

There were three shallow, dry ditches running along three sections of intact hedgerow. Some of the boundary hedgerows contained trees along their length, mostly broadleaved. The extreme northeastern section of the site consisted of a relatively small area of poor semi-improved grassland with patches of tall ruderal vegetation and scrub, and some scattered broadleaved trees. The site had no buildings or structures, and no still or running water. There were no natural or man-made boundaries across most of the southern end of the site, whilst the southern boundary of the survey site, and parts of the eastern boundary, ran across three cultivated fields or semi-improved grassland (see Appendix 2).

The agricultural land had recently been ploughed (ploughed in cereal stubble) and there was one field of recently re-seeded grass. There were some narrow strips of set-side vegetation bordering two ploughed fields east of the centre of the site. These strips consisted of improved grassland. They were species poor and included Bristly Ox-tongue *Picris echioides*, Dandelion *Taraxacum vulgaria*, Hoary Plantain *Plantago media*, Creeping Fescue *Festuca rubra* and Ryegrass spp. *Lolium spp.*

The intact, species poor hedgerows across the site consisted of Hawthorn, Blackthorn, Elder, Common Privet *Ligustrum vulgare*, Dog Rose, and Bramble, with some Buckthorn *Rhamnus catharticus*, Ash, Crab Apple *Malus sylvestris* and Dogwood. These were the main species to the east of the site.

The hedgerows to the west were dominated by Lilac, but Hazel *Corylus avellana*, Field Maple, Butterfly Bushes *Buddleja davidii*, Wild Cherry *Prunus avium*, Elder, Dog Rose, Bramble, Dogwood, Hawthorn, Crab Apple, Common Privet, a Strawberry Tree *Arbutus unedo* and Ivy *Hedera helix* were all noted.

Along these intact hedgerows a number of plant species were noted growing in narrow to medium strips of semi-improved grass. These included Common Toadflax, Field Scabious *Knautia arvensis*, Small Scabious *Scabiosa columbaria*, Cow Parsley, Lords and Ladies *Arum maculatum*, Red Dead Nettle, White Dead Nettle *Lamium album*, Creeping Thistle *Cirsium arvense*, Field Bindweed, Black Bryony *Tamus communis*, Perennial Sow-thistle *Sonchus arvensis*, Hogweed *Heracleum sphondylium*, Common Mallow *Malva sylvestris*, Tansy *Tanacetum vulgare*, Field Poppy *Papaver rhoeas*, Red Clover *Trifolium pratense* and Rose of Sharon *Hypericum calycinum*.

The grasses here consisted of Cocksfoot *Dactylis glomerata*, False Brome *Brachypodium sylvaticum*, Common Wild Oat *Avena fatua*, Common Couch *Agropyron repens* plus some Common Oat *Avena sativa*.

The poor semi-improved grassland and tall ruderal vegetation contained a small range of forbs such as Fat Hen, Common Nettle, Broad-leaved Dock, Lesser Knapweed, Yarrow *Achillea millefolium*, Cow Parsley, Dandelion, and Creeping Buttercup *Ranunculus repens*, White Dead Nettle and Teasel *Dipsacus fullonum*. Part of it was being grazed by a few livestock at the time, these being enclosed by a temporary fence.

Grasses here were represented by Rough Meadow-grass *Poa trivialis,* False Oatgrass *Arrhenatherum elatius*, Creeping Soft-grass *Holcus mollis*, Creeping Fescue and Cocksfoot.

The scattered trees in the above area consisted of five False Acacia up to 11 metres high, and seven Silver Birch up to 13 metres high. Some trees close to the western boundary fence, but in an adjacent wooded garden, were growing out over the land, including a large bough of a Horse Chestnut. The scattered scrub consisted of Elder, Silver Birch and Hawthorn overgrown with Bramble in places.

The scattered trees elsewhere on site were along hedgerows, and included species such as Ash, Sycamore, Elm, White Poplar and Field Maple. Several trees were to the west of the site access road and to the north of the road to Turnip Hall Farm. Most of these were growing behind the boundary hedges but were often only 0.5 to 2.0 metres from it.

These were in a large wooded garden of a private house. Trees on the boundary included five Sycamores, whilst species such as Scot's Pine *Pinus sylvestris*, Cherry spp. *Prunus spp.*, Horse Chestnut, Copper Beech *Fagus sylvatica* and Silver Birch were within 2.0 metres of it, but outside the boundary. Some of these trees had cavities in the main trunks.

The defunct hedgerows were mainly Blackthorn with some Dewberry *Rubus caesius*, Goat Willow *Salix caprea*, Dogwood, Bramble, Dog Rose, Ash, Hazel, Field Maple, Elder, Butterfly Bush and Hawthorn.

Typical plants in the field layer included Common Nettle, Fat Hen, Hedge Bindweed *Calystegia sepium*, Common Hemp Nettle *Galeopsis tetrahit*, Upright Hedge-parsley *Torilis japonica*, Dovesfoot Cranesbill, Red Dead Nettle, and Spear Thistle. Typical grasses were False Oat-grass, False Brome and Cocksfoot.

The site was accessed via a small metalled road running south off the B1053 just beyond the entrance to a Tesco supermarket and garage (going east out of Saffron Walden on the Radwinter Road). This road divided at a T-junction after the first 100 metres; to the left (east) was access to Turnip Hall Farm Units, and to the right (west then south) was access to Shire Hill Farm.

These metalled roads were bordered to a large extent by lengths of low wooden fencing with scattered bushes and strips of improved grassland. Species included Dogwood, Old Man's Beard, Ribwort Plantain, Rosebay Willowherb, Yarrow, Bristly Ox-tongue, Hedge Bindweed, Broad-leaved Dock, Scentless Mayweed *Matricaria maritima*, Spear Thistle, Self-heal *Prunella vulgaris*, Common St. John's Wort *Hypericum perforatum* and Dandelion.

More recently planted strips of bushes and trees screened the Superstore adjoining the northwestern part of the site. On three boundaries (west, south and east) this vegetation had grown through or over the boundary fences.

Examples of species here were Ash, Dog Rose, Elder, Silver Birch, Oak, Beech, Hazel, Holm Oak *Quercus ilex*, Wayfaring Tree *Viburnum lantana*, Scot's Pine and Rowan *Sorbus aucuparia*. There were no mature trees and all were at least 0.5 metres outside the boundary.

The agricultural nature of the land in this section meant that the vegetation at the field edges was species poor e.g. Common Nettle, Creeping Thistle, Bramble, Red Dead Nettle, Cow Parsley and common grasses.

The Ordnance Survey Grid Reference is TL 5520 3819 centred on the middle of the site.

1.3 Proposed works

It is understood that a residential development is proposed for the site.

2. METHODOLOGY

2.1 Desk study

A detailed desk study was undertaken to determine the nature conservation designations and protected species that had been recorded within a 2.0 km radius of the site. This involved contacting statutory and non-statutory organisations, and then assimilating and reviewing the data provided.

The consultees for the desk study were:

- □ Multi Agency Geographic Information (MAGIC) website <u>www.magic.gov.uk;</u>
- National Biodiversity Network Gateway website;
- □ Essex Biological Records Centre.

2.2 Habitat survey

An Extended Phase 1 Habitat Survey was carried out across the whole of the survey site. It was conducted using standard JNCC (2003) techniques and methodologies.

The Extended Phase 1 visit took place on 11th September 2013, in cool and cloudy conditions, being mostly dry with early light rain, and a fresh wind easing to light.

2.3 **Protected species survey**

During the surveys the potential for other protected and important species was assessed. This included European Protected Species, legally protected species and Local Biodiversity Action Plan Species (and habitats).

2.4 Constraints

There were no constraints as the survey was carried out just past the optimum time of year, in good weather conditions.

3. **RESULTS**

3.1 Desk study

3.1.1 Designated sites

Statutory Sites

To the northeast lies a single statutory site; Hales and Shadwell Woods Site of Special Scientific Interest (SSSI). Unit 1 (Hales Wood) is right on the edge of the 2.0 km zone, and Unit 2 (Shadwell Wood – also an Essex Wildlife Trust Site) is some 3.0 km away. Seven species of orchid have been recorded at the site including Greater Butterfly-orchid and Bird's-nest Orchid. Other species include Sanicle Sanicula europaea, Wood Anemone, Bluebell, Oxlip and Herb Paris.

Non-Statutory Sites

Within the 2.0 km search area there is a block of land called 'The Saffron Walden Living Landscapes Area', bounded by the Ashdon and Radwinter Roads, and Redgates Lane. This block has great importance for wildlife, conservation, landscape and public enjoyment of the countryside reasons.

It contains 10 Local Wildlife Sites (LWS), one of which is to be extended to cover an area of ancient woodland and flower-rich meadowland. The whole block of land is in the middle of the Essex Living Landscapes Oxlips Woods Zone. The application site also lies within the same zone (connecting corridor).

The LWS were designated by Uttlesford District Council following their survey, with reviews by an Essex Wildlife Trust/Essex Ecology Services Ltd team in 2007. These sites are hugely important individually, but much more so as part of a wider high landscape value area, which has retained a fair amount of wildlife rich habitats in the farmland areas, as well as in the designated wildlife sites.

The LWSs have been recognised for their chalky grassland flora including the nationally scarce plant Crested Cow-wheat. A few plants of the Essex Red Data Listed such as Wild Liquorice and the locally common Oxlip also occur. Other species recorded include Common Spotted Orchid, Marjoram *Origanum vulgare*, Greater Knapweed, Burnet Saxifrage *Pimpinella saxifraga*, Restharrow *Ononis repens*, Rockrose *Helianthemum nummularium*, Kidney Vetch, Narrow- leaved Everlasting-pea and Yellow Archangel *Galeobdolon luteum*.

The rich plant life extends to the woodlands here which have Wood Sedge *Carex sylvatica*, Remote Sedge *Carex remota*, Pendulous Sedge *Carex pendula*, and Bush

Vetch *Vicia sepium*. The nationally scarce Wood Barley has been recorded too, though not recently seen.

Other species include Hairy St. John's-wort *Hypericum hirsutum*, Dog's Mercury *Mercurialis perennis*), Three-veined Sandwort *Moehringia trinervia*, Wood Millet *Milium effusum*, Giant Fescue *Festuca gigantea*, Greater Burnet Saxifrage *Pimpinella major*, Wood Anemone *Anemone nemorosa*, Angelica *Angelica sylvestris*, Marsh Thistle *Cirsium palustre*, Meadowsweet *Filipendula ulmaria*, Jointed Rush *Juncus articulatus*, Creeping Jenny *Lysimachia nummularia*, and Tufted Hair-grass *Deschampsia cespitosa*.

The woodlands have some has some wetter and marshy areas, with wet woodland being a national priority for nature conservation.

A further 13 Local Wildlife Sites are located within the desk study area, the majority of which are ancient woodlands, with a small number of other areas designated for species rich road verges and other habitats such as streams and chalk grasslands.

Other non-statutory areas located within 2.0 km of the site include five areas of woodland listed on Natural England's Inventory of Ancient Woodland. The closest to the site is Pounce Wood LWS described above.

There is indirect connectivity via the SSSI and the Essex Living Landscapes Oxlip Woods Zone to the application site. However the SSSI and Oxlips Wood Zone are separated from the application site by intervening land use, including main and local roads, in particular the B1053 Radwinter Road, and arable fields. It is felt therefore, that the SSSI and LWS will not be impacted upon by the proposed development.

3.1.2 Protected species

A search of ecological data for the area was carried out, this revealing a number of records of European Protected Species, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species within a 2.0 km radius of the site.

From the site survey itself there were single records of Brown Hare and Song Thrush. Both these species feature in the Essex Biodiversity Project Action Plans.

In addition, there were over 40 records of bats from the study area, including Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared Bat, Natterer's Bat and Serotine, as well as undetermined species.

The closest record to the site was of a single Natterer's Bat noted approximately 200 m to the northwest of the site boundary in 2003.

One record of Badger was provided for the desk study area. This was of a sett approximately 200m to the east of the site, dating from 2005. There was also a

record of Red Squirrel, from a location in a suburban area of Saffron Walden, approximately 1.3 km to the southwest of the site. The record related to an isolated re-introduction of a small number of Red Squirrels carried out in Saffron Walden in 2005. However the population is now believed to have died out.

There was only one reptile record, this of a Slow-worm approximately 1.8 km to the southeast of the site and dating from 2004. However, there were seven records of Great Crested Newts, although the closest of these originated from a location approximately 1.4 km to the northeast of the site dating from 1998.

Notable plant records were present, including Crested Cow-wheat and Oxlip, both of which are Priority Species in the UKBAP.

3.2 Habitat survey

3.2.1 Habitat descriptions

The following habitats were recorded across the site:

- Arable land with improved grassland;
- □ Intact hedgerows, species poor;
- Poor semi-improved grassland;
- □ Tall ruderal vegetation;
- Scattered scrub;
- Scattered broadleaved trees;
- Defunct hedgerow, species poor;
- Hardstanding;
- Other.

These are shown on the Phase 1 Habitat Survey map in Appendix 2, with the target notes (where applicable) in Appendix 3.

Arable land with improved grassland

At the time of the visit, the majority of the site consisted of arable land under continuous cultivation (ploughed in cereal stubble and recently re-seeded grass with narrow strips of set-side vegetation).

The latter was species poor, with Bristly Ox-tongue, Dandelion, Hoary Plantain, Ribwort Plantain and Ryegrass the only species noted (Figs. 3 and 4).



Fig. 3 Agricultural land looking SE from Superstore entrance



Fig. 4 Agricultural land near B1053 looking W fromT-Junction access

Intact hedgerows, species poor

There were several lengths of species poor intact hedgerow mostly along the boundaries. One hedge crossed the land (Fig. 5).

The hedgerows consisted mainly of Hawthorn, Blackthorn, Bramble, Dog Rose, Lilac and Elder. Other species present in low numbers included Ash, Common Privet, Buckthorn, Crab Apple, Dogwood, Hazel, Field Maple, Sallow, Wild Cherry, and Strawberry Tree.



Fig. 5 Species poor intact hedgerow running across E part of site



Fig. 6 Species poor intact hedgerow - part of W site boundary

A number of plant species were noted growing in narrow to medium strips of semiimproved grass. These included Common Toadflax, Field Scabious, Small Scabious, Cow Parsley, Lords and Ladies, Red Dead Nettle, White Dead Nettle, Creeping Thistle, Hedge Bindweed, Black Bryony, Perennial Sow-thistle, Hogweed, Common Mallow, Tansy, Field Poppy, Red Clover and Rose of Sharon.

The grasses consisted of Cocksfoot, False Brome, Common Wild Oat, Common Couch and Common Oat.

A dry ditch ran beneath the hedge shown in Fig. 5, with another beneath a hedge fronting the B1053 between the superstore entrance and the site entrance. An additional dry ditch ran for about half the length of a hedgerow to the east of the site entrance road.

Some hedgerows contained mature broadleaved trees (Fig 6).

Tall ruderal vegetation with scattered scrub

The extreme northeastern section of the site (rectangular projection) consisted of a relatively small area of poor semi-improved grassland with patches of tall ruderal vegetation and scattered scrub.

This contained a small range of dominant forbs such as Fat Hen, Common Nettle, Broad-leaved Dock, and Lesser Knapweed. Also noted were Yarrow, Cow Parsley, Dandelion, Creeping Buttercup, White Dead Nettle and Teasel.

Poor semi-improved grassland

Within the area of the tall ruderal vegetation there was poor, semi-improved grassland. This was being grazed by livestock at the time. Grasses here were represented by Rough Meadow-grass, False Oatgrass, Creeping Soft-grass, Creeping Fescue and Cocksfoot (Figs. 7 and 8).





Fig. 7 Poor semi-improved grassland with tall ruderal vegetation

Fig. 8 Tall ruderal vegetation with scattered scrub

The scattered scrub consisted of Elder, Silver Birch and Hawthorn overgrown with Bramble in places.

Scattered broadleaved trees

The extreme northeastern section of the site also had some scattered broadleaved trees. These consisted of five False Acacia up to 11 metres high and seven Silver Birches up to 13 metres high.

There were some trees close to the western boundary fence, but in an adjacent wooded garden, which were growing out over the land, including a Horse Chestnut.

Broadleaved trees were present elsewhere on site along hedgerows including Ash, Sycamore, Elm, White Poplar, and Field Maple, with over 20 along the western boundary. These were up 8 to 18 metres high (Ref. Fig. 6). Several trees were growing to east of the site access road and to the north of the road to Turnip Hall Farm.

Trees on the boundary here included five Sycamores, whilst species such as Scot's Pine, a Cherry sp., Horse Chestnut, Copper Beech and Silver Birch were growing within 2.0 metres of the edge in a wooded garden (Figs. 9 and 10). Some of these trees had cavities in the main trunks.





Fig. 9 Broad-leaved trees to left of mainFig. 10 Scattered broad-leaved treessite entrance (on entering from B1053)in northeast corner of site

Defunct hedgerow, species poor

The defunct hedgerows were mainly Blackthorn with some Dewberry, Goat Willow, Dogwood, Bramble, Dog Rose, Ash, Hazel, Field Maple, Elder, Butterfly Bush and Hawthorn.

Typical plants in the field layer included Common Nettle, Fat Hen, Hedge Bindweed, Common Hemp Nettle, Upright Hedge Parsley, Dovesfoot Cranesbill, Red Dead Nettle, and Spear Thistle.



Fig. 11 Defunct, species poor hedgerow by track to Shire Hill Farm

Grasses were dominated by False Oat-grass, False Brome and Cocksfoot (Fig. 11).

Hardstanding

The site was accessed via a small metalled road. This divided at a T-junction after the first 100 metres. To the left was access to Turnip Hall Farm Units and to the right was access to Shire Hill Farm.

These metalled roads were bordered to a large extent by lengths of low wooden fencing with scattered bushes and strips of improved grassland. Typical species here were Dogwood, Old Man's Beard, Ribwort Plantain, Rosebay Willowherb, Yarrow, Bristly Ox-tongue, Bindweed, Broad-leaved Dock, Scentless Mayweed, Spear Thistle, Self-Heal, Common St. John's Wort and Dandelion (Fig. 12).





Fig. 12 Metalled access road

Fig. 13 Typical screening around superstore

<u>Other</u>

Belts of bushes and trees had been planted to screen the superstore adjoining the northwestern part of the site.

On the west, south and east boundaries this vegetation had grown through or over the boundary fences. Ash, Dog Rose, Elder, Silver Birch, Oak, Beech, Hazel, Holm Oak, Wayfaring Tree, Scot's Pine and Rowan were all noted, but there were no mature trees and all were at least 0.5 metres beyond the boundary.

The vegetation at the field edges was species poor, and included Common Nettle, Creeping Thistle, Bramble, Red Dead Nettle, Cow Parsley and common grasses (Fig. 13).

3.2.2 Flora

The botanical composition of each habitat was typical, and all species recorded were common and widespread.

No rare vascular plants were found, and there were no invasive species or notifiable weeds.

A list of species observed is presented in Appendix 4.

3.3 Protected species survey

3.3.1 Bats

There was a dead Silver Birch and a Horse Chestnut just beyond the boundary hedge to the left of the main access road (Figs. 14 and 15 – Target Note 1).

These supported features including decay cavities, holes, fissures and exfoliating bark that were considered potentially suitable for bat roosting and/or hibernation.





Fig. 14 Dead Silver Birch with cavity

Fig. 15 Horse Chestnut with cavity

The decay cavities were only 1.0 to 2.0 metres beyond the site boundary.

The site as a whole was thought to be of low value to foraging or commuting bats, as it was mostly cultivated land, although the hedgerows and scattered trees did provide some cover.

3.3.2 Badgers

No evidence of Badger presence was found.

3.3.3 Otters

No evidence of Otter Lutra lutra presence was found.

3.3.4 Water Voles

No evidence of Water Vole presence was found.

3.3.5 Birds

Across the site, a total of 30 species of birds were observed. Of these five were Species of High Conservation Concern (RSPB Red list); Starling, Song Thrush, House Sparrow, Linnet and Yellowhammer. A further six were Species of Medium Conservation Concern (RSPB Amber list); Kestrel, Lesser Black-backed Gull, Swallow, Dunnock, Meadow Pipit, and Bullfinch. All the rest were Species of Low Conservation Concern (RSPB Green list).

A number of the birds were flying over the site, e.g. Lesser Black-backed Gull, Pied Wagtail, Linnet and Yellowhammer. Others were foraging along the hedgerows or feeding in the fields e.g. Starling, Song Thrush, House Sparrow, Meadow Pipit and Bullfinch. Over 30 Blue Tits and 10 Long-tailed Tits were recorded feeding along the hedgerow depicted in Figure 5.

A nest of a Woodpigeon was found in a Silver Birch tree in the northeastern corner of the site. A recently fledged juvenile Woodpigeon was seen close to this, and may well have come from the nest.

At the time of the visit there was no other evidence of nesting birds on the site, although it was well past the breeding season for most bird species.

A full list of species noted is given in Appendix 5.

3.3.6 Reptiles and common amphibians

The site contained some potentially suitable refugia or hibernacula for reptiles and amphibians, and there were some suitable basking areas, with foraging opportunities. This suitability was mainly confined to the northeastern extremity of the land, at it was overgrown and unkempt, with similar adjoining habitat, including a large wooded garden and derelict buildings with overgrown land. In the northeastern extremity there were some piles of partially rotting timber on the ground (Fig. 16), and also a small amount of rubble and corrugated sheets, plus a concrete hardstanding. Nearby there was an old oil tank surrounded by tall ruderal vegetation (Fig. 17). As a precaution it is recommended that such items are removed and/or dismantled by hand in case a common amphibian or small mammal is present.



Fig. 16 Partially rotting timbers on ground

Fig. 17 Old oil tank

Elsewhere the majority of the site was cultivated, with some hedgerows, these mainly along the boundaries. In these areas there were no suitable refugia or hibernacula for reptiles, and there were no suitable basking areas, with very limited foraging opportunities. As such, the presence of reptiles and common amphibians was thought to be highly unlikely.

3.3.7 Great Crested Newts

There was a medium sized pond to the south of the site and just to the west of Shire Hill Farm (Ordnance Survey Grid Reference TL 5516 3783). It lay about 250 metres beyond the southern boundary of the site in the garden of Shire Hill Farm, and measured approximately 45×30 metres (Fig. 18 – Target Note 2).



Fig. 18 Pond to the rear of Shire Hill Farm

The pond used to be well stocked with Carp *Cyprinus carpio*, but most of these had been predated, although smaller fish were still present. A Grey Heron was flushed from the pond edge, and these were apparently regular visitors (*pers comms*).

In addition some ornamental wildfowl were present with at least eight Muscovy Ducks *Cairina moschata* or hybrids observed. A juvenile Moorhen *Gallinula chloropus* was noted and Mallards *Anas platyrhynchos* were said to breed there.

The water quality was poor, being turbid and a murky green colour, with no surface or sub-aquatic vegetation apparent. The quality of vegetation immediately around the pond edges was also poor.

Overall the pond was relatively open with a number of bushes and trees mostly along the southern and western perimeters.

Given the nature of the pond (poor quality and mostly open), the population of fish, the resident wildfowl, and use by herons, it was considered to be unsuitable for breeding Great Crested Newts. It is also understood that the pond had recently been surveyed for Great Created Newts and the same conclusion had been reached.

As such a Habitat Suitability Score (HSI) for Great Crested Newts was not applied to the pond.

Irrespective of the above, there was excellent foraging habitat for amphibians immediately around the pond, with an abundance of refugia and hibernacula, so even if animals were present, it is thought unlikely that they would venture onto the arable fields.

There was another small dry pond about 400 metres southeast of the site, in the middle of cultivated land, with no still or running water in the vicinity (Ordnance Survey Grid Reference TL 5568 3788). It was considered unsuitable for Great Crested Newts.

3.3.8 Invertebrates

It was also possible to assess the potential importance of the habitats within the application site to invertebrates.

It was concluded that there was generally low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

3.3.9 Other species

A Brown Hare was seen on a ploughed field near the southern site boundary, having run from a hedgeline just outside the survey site area.

A Rabbit was noted along the hedgerows, and there was a concentration of Rabbit burrows around a telegraph pole along the hedgerow in Fig. 5. Rabbit burrows were also noted along the hedgerow depicted in Fig. 11.

No other important or protected species were found during the survey.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Site evaluation

The site supported pockets of habitat that were considered to be of some value to wildlife. The cultivated land (over 95% of area) was of minimal wildlife value.

The hedgerows, scattered trees and scrub, and tall ruderal vegetation provided potential breeding and/or foraging cover for common birds.

Just one Woodpigeon's nest was seen, but it was difficult to locate birds' nests due to the leaf cover, and it was well outside the breeding season for most bird species.

The northeastern section of the site was thought to be of some value to foraging or commuting bats mostly due to the neighbouring habitats. Two trees just beyond the site boundary here contained cavities which were considered to be potentially suitable for bat roosting and/or hibernation.

The rest of the site, except the boundary hedgerows and trees, was thought to be of low value to foraging or commuting bats.

The poor semi-improved grassland was not particularly diverse in grasses and wildflowers, and was relatively small in area. It did have some attraction to invertebrates.

No evidence of Badger activity was noted, although a Brown Hare and a Song Thrush were seen, with both of which feature in the Essex Biodiversity Project Action Plan.

With an absence of permanent wetland features the site was unsuitable for amphibians, and there was no direct connectivity with any of the locations where these species have been recorded. The nearby ponds were both thought to be unsuitable for breeding Great Crested Newts, and their presence on the site was thought to be highly unlikely.

It was concluded that there was low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

4.2 **Possible impacts of proposed work and recommendations**

The main impact of any development will be on the semi-natural habitats noted above, in particular the hedgerows, scattered trees and bushes and tall ruderal vegetation, as these had potential for nesting birds.

Since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the period 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species.

The proposed development could lead to the loss of the potential bird nesting sites if some of the cross-site hedgerows, scattered trees and scrub, and other ground cover are removed. This assumes the boundary hedgerows and trees will remain more or less intact.

It is therefore recommended that as much of the hedgerows, trees and scrub as possible are retained. If hedgerows, bushes and trees are removed, it is recommended that suitable compensatory habitat is provided e.g. along sections of the southern boundary and sections of the eastern boundary where there are no natural or man-made boundaries.

Furthermore, the presence of ground nesting birds during the breeding season cannot be ruled out.

Although just outside the site boundary, it is recommended that the dead Silver Birch and Horse Chestnut trees depicted in Figs. 14 and 15 are retained, as they provided good potential habitat for roosting bats.

Although no evidence of reptiles or common amphibians was found during the survey, both these and small mammals could be present in the northeastern section. As such, care will be taken at all times during removal of timbers, rubble, corrugated sheets, concrete and an old oil tank, as well as with vegetation removal and topsoil stripping. Any small mammals, reptiles and common amphibians disturbed or uncovered, will either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.

Taking all the evidence into account, the proposed development of land to the east of Saffron Walden is unlikely to impact significantly on wildlife, and will not lead to a significant loss of habitat in the area.

4.3 Further surveys

If any tree or shrub/hedge removal cannot be timed appropriately to avoid the bird nesting period (considered to be March to August inclusive), then further surveys of the ground, trees and/or shrubs to be cleared or removed will be necessary.

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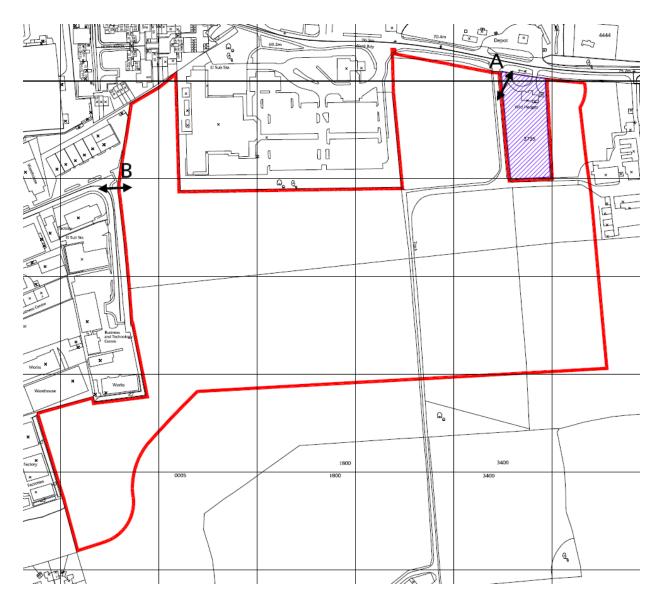
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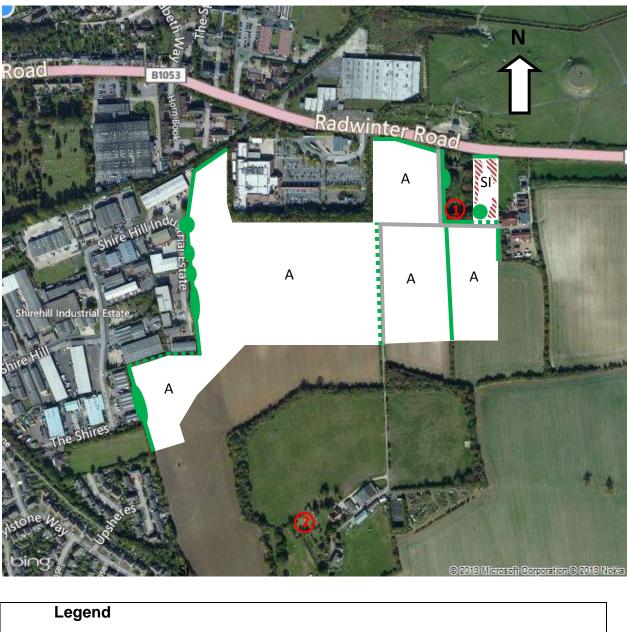
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APPENDICES

- Appendix 1: Site Plan
- Appendix 2: Extended Phase 1 Habitat Survey Map
- Appendix 3: Target Notes
- Appendix 4: Plant species list
- Appendix 5: Bird species list
- Appendix 6: Relevant legislation









Legend
Defunct hedge, species A Arable land Intact hedge, species poor
Scattered broadleaved trees SI Poor semi-improved grassland Hardstanding
Tall ruderal vegetation O Target Note

Appendix 3: Target Notes

Target Number	Notes
1	Silver Birch and Horse Chestnut with bat roost potential
2	Pond at Shire Hill Farm

Appendix 4: Plant species list

Latin name	Common name
Salix caprea	Goat Willow
Populus alba	White Poplar
Betula pendula	Silver Birch
Ulmus procera	English Elm
Prunus avium	Wild Cherry
Malus sylvestris	Crab Apple
Crataegus monogyna	Hawthorn
Prunus spinosa	Blackthorn
Robinia pseudoacacia	Robinia or Acacia
Acer pseudoplatanus	Sycamore
Acer campestre	Field Maple
Aesculus hippocastanum	Horse Chestnut
Fraxinus excelsior	Ash
Arbutus unedo	Strawberry Tree
Syringa vulgaris	Lilac
Corylus avellana	Hazel
Sambucus nigra	Elder
Rhamnus catharticus	Buckthorn
Cornus sanguinea	Common Dogwood
Ligustrum vulgare	Common Privet
Buddleja davidii	Butterfly Bushes

Poso conina	Dog Roso
Rosa canina	Dog Rose
Rubus fruticosus	Bramble
Rubus caesius	Dewberry
Hypericum calycinum	Rose of Sharon or Aaron's Beard
Urtica dioica	Common Nettle
Rumex obtusifolius	Broad-leaved Dock
Anthriscus sylvestris	Cow Parsley
Torilis japonica	Upright Hedge-parsley
Heracleum sphondylium	Hogweed or Cow Parsnip
Clematis vitalba	Traveller's Joy or Old Man's Beard
Tamus communis	Black Bryony
Ranunculus repens	Creeping Buttercup
Papaver rhoeas	Field Poppy
Hypericum perforatum	Common St. John's Wort
Chenopodium album	Fat Hen or White Goosefoot
Malva sylvestris	Common Mallow
Geranium molle	Dovesfoot Cranesbill
Trifolium pratense	Red Clover
Plantago media	Hoary Plantain
Plantago lanceolata	Ribwort or Ribgrass
Prunella vulgaris	Self-heal
Epilobium angustifolium	Rosebay Willowherb
Arum maculatum	Lords and Ladies or Cuckoo Pint
Calystegia sepium	Hedge Bindweed or Bellbine
Convolvulus arvensis	Field Bindweed
Linaria vulgaris	Toadflax
Lamium purpureum	Red Dead Nettle
Lamium album	White Dead Nettle
Galeopis tetrahit	Common Hemp Nettle
Hedera helix	lvy
Dipsacus fullonum	Teasel
	1

Knautia arvensis	Field Scabious or Gypsy Rose
Scabiosa columbaria	Small Scabious
Matricaria maritima	Scentless Mayweed
Achillea millefolium	Yarrow or Milfoil
Tanacetum vulgare	Tansy
Cirsium vulgare	Spear Thistle
Cirsium arvense	Creeping Thistle
Centaurea nigra	Lesser Knapweed or Hardheads
Picris echioides	Bristly Ox Tongue
Sonchus arvensis	Perennial Sow-thistle
Taraxacum vulgaria	Dandelion
Festuca rubra	Creeping Fescue
Poa trivialis	Rough Meadow-grass
Dactylis glomerata	Cocksfoot
Brachypodium sylvaticum	False Brome
Agropyron repens	Common Couch
Arrhenatherum elatius	False Oatgrass
Avena fatua	Common Wild Oat
Avena sativa	Common Oat
Holcus mollis	Creeping Soft-grass
Ryegrass spp.	Lolium spp.

Appendix 5: Bird species list

Common name	Latin name
Grey Heron	Ardea cinerea
Sparrowhawk	Accipiter nisus
Kestrel	Falco tinnunculus
Lesser Black-backed Gull	Larus fuscus
Woodpigeon	Columba palumbus
Collared Dove	Streptopelia decaocto
Magpie	Pica pica
Jackdaw	Corvus monedula
Rook	Corvus frugilegus
Carrion Crow	Corvus corone
Goldcrest	Regulus regulus
Blue Tit	Cyanistes caeruleus
Great Tit	Parus major
Coal Tit	Periparus ater
Swallow	Hirundo rustica
Long-tailed Tit	Aegithalos caudatus
Wren	Troglodytes troglodytes
Starling	Sturnus vulgaris
Song Thrush	Turdus philomelos
Robin	Erithacus rubecula
Dunnock	Prunella modularis
House Sparrow	Passer domesticus
Pied Wagtail	Motacilla alba
Meadow Pipit	Anthus pratensis
Chaffinch	Fringilla coelebs
Greenfinch	Chloris chloris
Goldfinch	Carduelis carduelis
Linnet	Carduelis cannabina
Bullfinch	Pyrrhula pyrrhula
Yellowhammer	Emberiza citrinella

Appendix 6: Relevant legislation

6.1 – Birds

In Britain, all wild birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981. There are penalties for:

- □ Killing, injuring or capturing them, or attempting any of these;
- □ Taking or damaging the nest whilst in use;
- □ Taking or destroying the eggs.

6.2 – Bats

In England, Scotland and Wales, all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended), through inclusion in Schedule 5. In England and Wales this Act has been amended by the Countryside and Rights of Way Act 2000 (CRoW), which adds an extra offence, makes species offences arrestable, increases the time limits for some prosecutions, and increases penalties.

All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations 1994, (or Northern Ireland 1995) (the Habitats Regulations), which defines 'European protected species of animals'.

The above legislation can be summarised thus (Mitchell-Jones and McLeish, 2004):

- □ Intentionally or deliberately kill, injure or capture (or take) bats;
- Deliberately disturb bats (whether in a roost or not;
- Recklessly disturb roosting bats or obstruct access to their roosts;
- Damage or destroy roosts;
- Possess or transport a bat or any part of a part of a bat, unless acquired legally;
- Sell (or offer for sale) or exchange bats, or parts of bats.

The word 'roost' is not used in the legislation, but is used here for simplicity. The actual wording is 'any structure or place which any wild animal...uses for shelter or protection' (WCA), or 'breeding site or resting place' (Habitats Regulations).

As bats generally have both a winter and a summer roost, the legislation is clear that all roosts are protected whether bats are in residence at the time or not.

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