Preliminary Ecological Appraisal of Cotswold Country Club, Bunkers Hill, Kidlington, Oxfordshire, OX5 3BA

Cotswold Wildlife Surveys

5th January 2018

Planning Reference No. 17/02148/OUT

CONTENTS

SUMMARY

At the Cotswold Country Club in Bunkers Hill near Kidlington, in Oxfordshire, planning permission is being sought for the re-development of the site.

In January 2018, Cotswold Wildlife Surveys was instructed to carry out a Preliminary Ecological Appraisal of the site. This was undertaken to determine the presence of any important habitats or species which might be impacted on by the potential re-development.

A search of the ecological data revealed a number of records of Protected, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species from within a 2.0 km radius of the site.

There was one statutory site within 2.0 km of the survey area, this Shipton-on-Cherwell and Whitehill Farm Quarries Site of Special Scientific Interest (SSSI) 60 m southeast and 750 m to the northeast. This site is designated for geological reasons.

It is also designated as Bunkers Hill Quarry Conservation Target Area (CTA) and Local Wildlife Site (LWS). It is a limestone quarry which supports extensive open water, wetland, calcareous grassland and open-ground habitats. The bird interest is significant for overwintering, migrating and breeding birds. The wetland and calcareous grassland habitats support a varied flora. Notable invertebrates and reptiles have also been recorded.

The other closest non-statutory site was Lower Cherwell Valley Conservation Target Area, the edge of which lies 100 m to the northeast. This site features a range of habitats including fen and swamp, reedbed, lowland meadow, wet grassland/floodplain grazing marsh, limestone grassland and eutrophic standing water.

It also supports Water Vole *Arvicola amphibius* as well as priority species of birds, such as Skylark *Alauda arvensis*, Reed Bunting *Emberiza schoeniculus*, Yellowhammer *E. citrinella* and Grey Partridge *Perdix perdix*.

Other local sites in the 2.0 km radius included Enslow Marsh LWS, Bletchingdon Quarry LWS and Lince Lane Copse District Wildlife Site (DWS).

In terms of protected species, there was a single Natterer's Bat *Myotis nattereri* roost 1.0 km east in 2011 for one animal. In the same location in 2015, Brown Long-eared *Plecotus auritus,* Common Pipistrelle *Pipistrellus pipistrellus,* Soprano Pipistrelle *P. pygmaeus* and Noctule *Nyctalus noctula* were all recorded foraging around the area.

Other bat roosts include Shipton Manor, 1.4 km southeast in 2016, where nocturnal surveys of a building confirmed the presence of a roost for 13 Brown Long-eared Bats and three Soprano Pipistrelle Bats, with smaller numbers of the same species recorded at the roost on different occasions.

Amphibian records included a number of Great Crested Newts *Triturus cristatus,* particularly from around Marlborough School 1.7 km southwest. These included 16 animals in a single pond to the south of the school in 2008, with more records from that year in other ponds close by. In addition, in 2014, surveys of these ponds revealed two Great Crested Newt larvae in one of the ponds, but no records from the others. The desk study also returned records for Common Toad *Bufo bufo,* Common Frog *Rana temporaria,* Smooth Newt *Lissotriton vulgaris* and Palmate Newt *L. helveticus* in the area.

Two reptile species were on record; Grass Snake *Natrix natrix* and Slow-worm *Anguis fragilis.* These are known to be present around the area, including to the southwest in Woodstock, and also at Bunkers Hill Quarry on the other side of the road through the village.

Extensive bird records were present for the area.

Despite the close proximity of the designated sites and some of the species records, it is considered that the re-development of the Country Club will not impact detrimentally on the habitats and wildlife, as there is no direct connectivity.

The Phase 1 Habitat survey took place on 5th January 2018, in cold and cloudy conditions with a strong wind.

The site comprised a former social club building with associated grounds. The latter included bare ground which was being used for car parking, this becoming overgrown with short perennial vegetation. A large area of poor, semi-improved grassland ran to the north of the building, with a bowling green at the northern end. Two small and dilapidated structures were present to the north of the bowling green.

Species poor, intact hedgerows enclosed the site and the bowling green, whilst only a single tree was present within the grassland.

The site was poor in floristic diversity, with no rare vascular plants recorded, and all species were common and widespread. There were no invasive or notifiable species with the exception of Tree Cotoneaster *Cotoneaster cornubia* which had been planted around the bowling green as part of the landscaping. This is known to be an invasive species in semi-natural habitat.

A total of five species of bird were observed during the visit, of which one was a Species of Medium Conservation Concern (RSPB Amber list); Dunnock *Prunella modularis.* The rest were all Species of Low Conservation Concern (RSPB Green list).

No old or in use birds' nests were found, although the hedgerows did provide some suitable habitat for nesting.

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 is unlikely to lead to the loss of bird nesting sites, as there is an abundance of suitable habitat in the surrounding area.

The tree did not support features such as decay cavities, woodpecker holes, fissures and exfoliating bark, that would be considered suitable for bat roosting and/or hibernation.

The buildings were also inspected for their suitability to support roosting bats. No evidence of bat activity or occupation was found and they were considered to be unsuitable for roosting.

The site was thought to be of low value to foraging or commuting bats, as the hedgerows provided limited cover, but it was small in extent, and there was much better habitat nearby.

There were no signs of Badger *Meles meles* use of the site, although there was extensive Rabbit *Oryctolagus cuniculus* activity.

The site was considered unsuitable for reptiles and Great Crested Newts, as there were no permanent still water wetland features, no refugia or hibernacula, limited foraging opportunities and no suitable foraging or basking areas.

Despite this, care should be taken at all times during any vegetation removal and topsoil stripping. Any small mammals or common amphibians disturbed or uncovered should either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

It was also possible to assess the potential importance of the habitats within the application site to invertebrates. Since the majority of the site was formerly closely mown, poor semi-improved grassland, 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.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. If trenches cannot be infilled immediately then they should either be covered overnight or escape routes should be provided. 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.

1. INTRODUCTION

1.1 Background and survey objectives

In January 2018, Cotswold Wildlife Surveys was instructed by JP Planning, on behalf of their client Keble Homes, to carry out a Preliminary Ecological Appraisal of the former Cotswold Country Club site in Bunkers Hill near Kidlington, in Oxfordshire. This was undertaken to determine the presence of any important habitats or species which might be impacted on by potential re-development of the site.

A search of the ecological data revealed the presence of a number of statutory and non-statutory nature conservation sites within a 2.0 km radius of the site, along with a number of records of Protected Species, Section 41 species and Biodiversity Action Plan priority species.

1.2 Site description

Three buildings were present on the site; a former social club and two small dilapidated pavilion/storage type structures associated with the bowling green.

A large area of bare ground was present which was being used as car parking.

The bare ground was becoming overgrown with short perennial vegetation, with species noted including Bristly Ox-tongue *Helminthotheca echioides*, Prickly Sow-thistle *Sonchus asper*, Ragwort *Senecio jacobaea*, Yarrow *Achillea millefolium*, Ribwort Plantain *Plantago lanceolata*, Curled Dock *Rumex crispus*, White Clover *Trifolium repens*, Spotted Medick *Medicago arabica*, Creeping Cinquefoil *Potentilla reptans*, vetch *Vicia sp.,* Dovesfoot Cranesbill *Geranium molle*, Dandelion *Taraxacum* Section *vulgaria* and White Dead-nettle *Lamium alba.*

A large area of poor, semi-improved grassland ran to the north of the main building, with a bowling green at the northern end. These had both been previously closely mown and intensively managed, although they were now overgrown. Grasses were represented by Creeping Fescue *Festuca rubra*, Cocksfoot *Dactylis glomerata*, Perennial Ryegrass *Lolium perenne,* Rough Meadow-grass *Poa trivialis*, and False Oatgrass *Arrhenatherum elatius,* with wildflowers present including similar species recorded in the short perennial vegetation.

Species poor, intact hedgerows ran along the western boundary and around the bowling green. The former was dominated by Blackthorn *Prunus spinosa,* which was encroaching into the grassland, with Hawthorn *Crataegus monogyna* also present.

The hedgerow surrounding the bowling green was largely comprised of Honeysuckle Privet *Lonicera pileate.*

Along the eastern boundary was a line of introduced shrubs planted as a hedgerow, although this was gappy. Species included Cherry Laurel *Prunus laurocerasus,* gum species *Eucalyptus sp.* and rose *Rosa sp.*

A single large non-native conifer *Cupressus sp* was also present.

The Ordnance Survey Grid Reference is SP 47324 17842, centred on the middle of the site.

1.3 Proposed works

The site is to be re-developed for residential use.

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 www.magic.gov.uk;
- National Biodiversity Network Gateway website;
- TVERC (Thames Valley Environmental Records Centre);
- Cherwell District Council planning website.

2.2 Habitat survey

A Preliminary Ecological Appraisal was carried out across the whole of the survey site. It was conducted using standard JNCC (2003) techniques and methodologies.

The Phase 1 visit took place on 5th January 2018, in cold and cloudy conditions with a strong wind.

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).

2.3.1 Badgers

Badgers are generally nocturnal and evidence of their presence in an area often comes from field signs rather than sightings of the animals. Useful field signs include:

- Setts (main, outlying, annex or subsidiary)
- Tufts of hair caught on barbed wire fences;
- Conspicuous Badger paths;
- Footprints;
- Latrines – small excavated pits in which droppings are deposited;

- 'Snuffle holes' – small scrapes where Badgers have searched for insects and plant tubers;
- Day nests – bundles of grass and other vegetation where Badgers may sleep above ground;
- Scratch marks on trees (usually near the sett).

Daytime surveys looking for field signs can be carried out at any time of the year, and should be non-intrusive, but nocturnal surveys of setts (if required), are only likely to be effective from April to November, when Badgers are most active, and any cubs present will have emerged.

Main setts

These usually have a large number of holes with large spoil heaps, and the sett generally looks well used. They usually have well used paths to and from the sett and between sett entrances. Although normally the breeding sett is in continual use, it is possible to find a main sett that has become disused because of excessive digging or for some other reason, in which case it is recorded as a disused main sett.

Annex setts

These are always close to a main sett, usually less than 150 m away, and are usually connected to the main sett by one or more obvious, well worn paths. They consist of several holes, but are not necessarily in use all the time, even if the main sett is very active.

Subsidiary setts

These often these have only a few holes, are usually at least 50 m from a main sett, and do not have an obvious path connecting them with another sett. They are not continuously active.

Outlying setts

These usually only have one or two holes, often have little spoil outside the hole, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the entrance hole), which is at least 250 mm in diameter and rounded or flattened oval in shape.

A search for evidence of Badger presence on site was undertaken as part of the Preliminary Ecological Appraisal.

2.3.2 Bats

In order to fully assess bat occupation of a particular site, the Bat Conservation Trust (2016) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal surveys.

The diurnal walkover provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, feeding remains, carcasses, or even animals in residence, whilst nocturnal surveys (if required) allow numbers and species of bats to be confirmed. The latter are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent but the suitability for bat roosting is considered to be low, medium or high.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats, Myotis bats (Natterer's and Whiskered/Brandt's *Myotis mystacinus/M. brandtii*), and Lesser Horseshoes *Rhinolophus hipposideros*, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where these butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal walkovers can be carried out at any time of the year, but nocturnal surveys should only be undertaken when bats are out of hibernation and in their summer roosts. The recommended period is from May to September inclusive, with May to August optimum and September sub-optimum. The season can be extended into October, although particularly cold weather will render this inadvisable. Indeed, the air temperature at the start of each survey must be at least 10°C or above.

Visits will be a minimum of two weeks apart, and the number of surveys is dependent on the evidence found or the suitability of the site to bats.

Where bats are found, or there is evidence of bat occupation or activity, i.e. that bat use is confirmed, the number and timing of visits will be decided by the ecologist, and will be appropriate for the type of roost. In general at least two nocturnal surveys will be carried out, both of which can be emergence surveys, or one emergence and one dawn re-entry.

Where there is no evidence of bat presence, and no suitability for roosting, no nocturnal surveys will be needed.

For a site with no evidence but low suitability, just one nocturnal emergence survey is required, this to be in the optimum period.

For medium suitability a minimum of two visits are needed, of which one must be in the optimum period, and one must be a dawn re-entry survey. With high suitability, three visits will be necessary, of which two must be in the optimum period. At least one of these must be a dawn re-entry survey, with the third visit either an emergence or a dawn re-entry.

For sites < 5 ha in size, and/or regularly shaped structures, at least two surveyors must be present, with more surveyors at larger sites and more complex buildings, e.g. those with multiple elevations and/or roof structures.

On 5th January 2018, a thorough inspection of the buildings was made by Andy Warren (Natural England bat licence No. 2015-16489-CLS-CLS) and Mollie Paxford (assisting), including the exterior and interior walls, roof coverings, roof voids, eaves, gables, roof and ceiling timbers, fascias, window casements and door frames. The tree and shrubs were inspected for any decay cavities, old woodpecker holes, splits, fissures or exfoliating bark.

10x42 binoculars and a Fenix TK75 torch were used for the inaccessible/unreachable areas. On this occasion an endoscope was not used, as there were no crevices or cavities that could not be inspected with a torch or by use of binoculars from a ladder.

The result of the inspection is detailed in Section 3.

2.3.3 Birds

Most resident and migrant birds breed in the spring and summer, although Woodpigeons *Columba palumbus* and Collared Doves *Streptopelia decaocto* nest throughout the year, and as a result could be on eggs in almost any month.

In season, signs of breeding include singing males, display and copulation, birds gathering nesting materials, adults carrying food, calling chicks, etc.

In winter none of these activities may be occurring, so a survey for old nests and/or nest holes is the most reliable method of determining the presence or absence of breeding birds.

This was carried out during the Preliminary Ecological Appraisal, along with a general site walkover to identify the presence of foraging birds.

2.3.4 Great Crested Newts

A survey for Great Crested Newts (GCN) may be indicated when background information on distribution suggests that they may be present. More detailed indicators are:

- *Any historical records of Great Crested Newts on the site or in the general area*
- *A pond on or near the site (within around 500 m), even if it holds water only seasonally*
- *Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland or hedgerows within 500 m of a pond*.

There are several field survey methods which can be employed depending on the time of year:

- *Bottle or funnel trapping – adults ideally February to May, with June and July sub-optimal, and August to September for detection of larvae (i.e. young)*
- *Egg search – April to June ideally, with March and July sub-optimal*
- *Torch survey – March to May for adults, with February and June to July sub-optimal, and August to September for larvae*
- *Netting – March to May for adults, with February and June to July sub-optimal, and August to September for larvae*
- *Pitfall trapping – March to May and September for adults, with February, June to August and October sub-optimal*
- *Refuge search – April to September ideally, with March and October sub-optimal.*

The latter two methods involve terrestrial habitats, the others aquatic habitats, for which a minimum of 4 visits per year are recommended, with at least 2 visits between mid-April and mid-May to record peak numbers (English Nature, 2001).

None of these methods were carried out as there was nothing to suggest that newts would be present on the site.

2.3.5 Otters

Otters are nocturnal and are active all year round. They are large with an adult male reaching up to 1.2 m from nose to tail, and weighing about 10 kg.

Feeding mainly on fish and amphibians, Otters live by undisturbed waters where there is plenty of cover, mostly by freshwater lakes, rivers and quiet small streams as well as some coasts.

An Otter may use over 40 km of river and needs many resting places throughout this range. A female otter will give birth to 1 to 3 cubs in a natal holt, which is often away from the main river and must be completely undisturbed.

Field signs include:

- Prints in soft mud;
- Spraints (faeces);
- Holts.

A search for evidence of Otter presence on site was undertaken as part of the Preliminary Ecological Appraisal.

2.3.6 Reptiles

Commoner reptiles which may be encountered in rural areas include Grass Snake, Slow-worm, and Common Lizard *Zootoca vivipara*.

During the winter months, from mid-October to late February or early March, they are in hibernation, usually deep in underground hibernacula, such as holes and cracks in the ground, among rocks or the roots of large trees, down animal burrows, or in piles of rubble or stone.

In the spring and summer they live above ground in well-vegetated places, with Grass Snakes often near or in water. Being cold-blooded all reptiles like to bask, and can often be found in open places.

There are very few signs of reptile presence, but these include:

- Shedded skin (snakes);
- Eggs (but not Common Lizard which gives birth to live young).

All potential refugia on site were checked where possible as part of the Preliminary Ecological Appraisal.

2.3.7 Water Voles

The Water Vole is the largest of the British voles. It lives in a series of holes or burrows at the water's edge and can be found along the banks of ditches, streams, rivers, lakes and canals.

Although Water Voles live in colonies, the breeding females are territorial, each defining their contiguous territory with latrines during the breeding season. This lasts from March to October.

The Water Vole is herbivorous, feeding primarily on the lush aerial stems and leaves of waterside plants. Its activity is normally confined to the area within two metres of the watercourse, the bankside vegetation in this area not only essential for food, but also for cover from predators.

Water Vole activity can be assessed by looking for the following signs:

- Burrows;
- Faeces and latrines;
- Feeding stations;
- Runs;
- Paw prints in areas of soft mud;
- Feeding 'lawns';
- Predator field signs.

A search for evidence of Water Vole presence on site was undertaken as part of the Preliminary Ecological Appraisal.

3. RESULTS

3.1 Desk study

3.1.1 Designated sites

There was one statutory site within 2.0 km of the survey area, this Shipton-on-Cherwell and Whitehill Farm Quarries Site of Special Scientific Interest (SSSI) 60 m southeast and 750 m to the northeast. This site is designated for geological reasons.

It is also designated as Bunkers Hill Quarry Conservation Target Area (CTA) and Local Wildlife Site (LWS). It is a limestone quarry which supports extensive open water, wetland, calcareous grassland and open-ground habitats. The bird interest is significant for overwintering, migrating and breeding birds. The wetland and calcareous grassland habitats support a varied flora. Notable invertebrates and reptiles have also been recorded.

The other closest non-statutory site was Lower Cherwell Valley Conservation Target Area, the edge of which lies 100 m to the northeast. This site features a range of habitats including fen and swamp, reedbed, lowland meadow, wet grassland/floodplain grazing marsh, limestone grassland and eutrophic standing water.

It also supports Water Vole as well as priority species of birds, such as Skylark *Alauda arvensis*, Reed Bunting, Yellowhammer and Grey Partridge.

Other local sites in the 2.0 km radius included Enslow Marsh LWS, Bletchingdon Quarry LWS and Lince Lane Copse District Wildlife Site (DWS).

3.1.2 Protected species

In terms of protected species, there was a single Natterer's Bat roost 1.0 km east in 2011 for one animal. In the same location in 2015, Brown Long-eared, Common Pipistrelle, Soprano Pipistrelle and Noctule were all recorded foraging around the area.

Other bat roosts include Shipton Manor, 1.4 km southeast in 2016, where nocturnal surveys of a building confirmed the presence of a roost for 13 Brown Long-eared Bats and three Soprano Pipistrelle Bats, with smaller numbers of the same species recorded at the roost on different occasions.

Amphibian records included a number of Great Crested Newts, particularly from around Marlborough School 1.7 km southwest.

These included 16 animals in a single pond to the south of the school in 2008, with more records from that year in other ponds close by. In addition, in 2014, surveys of these ponds revealed two Great Crested Newt larvae in one of the ponds, but no records from the others.

The desk study also returned records for Common Toad, Common Frog, Smooth Newt and Palmate Newt in the area.

Two reptile species were on record; Grass Snake and Slow-worm. These are known to be present around the area, including to the southwest in Woodstock, and also at Bunkers Hill Quarry on the other side of the road through the village.

Extensive bird records were present for the area.

Despite the close proximity of the designated sites and some of the species records, it is considered that the re-development of the Country Club will not impact detrimentally on the habitats and wildlife, as there is no direct connectivity.

3.2 Habitat survey

3.2.1 Habitat descriptions

The following habitats were recorded across the site:

- Short perennial vegetation;
- Poor, semi-improved grassland;
- Scattered tree;
- Species poor, intact hedgerows;
- Introduced shrubs;
- Bare ground;
- Buildings.

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

Short perennial vegetation

The bare ground was becoming overgrown with short perennial vegetation (Figs. 1 and 2), with species present including Bristly Ox-tongue, Prickly Sow-thistle, Ragwort, Yarrow, Ribwort Plantain, Curled Dock, White Clover, Spotted Medick, Creeping Cinquefoil, a vetch species, Dovesfoot Cranesbill, Dandelion and White Dead-nettle.

Figs. 1 & 2 Short perennial vegetation

Poor, semi-improved grassland

A large area of poor, semi-improved grassland (Figs. 3 and 4) ran to the north of the building, with a bowling green at the northern end. These had both been previously closely mown and intensively managed, although both were now slightly overgrown.

Grasses were represented by Creeping Fescue, Cocksfoot, Perennial Ryegrass, Rough Meadow-grass, and False Oatgrass, with wildflowers present including species from the short perennial vegetation.

Figs. 3 & 4 Poor, semi-improved grassland

Scattered tree

A single, non-native conifer tree was present within the grassland (Fig. 5).

Fig. 5 Scattered tree

Species poor, intact hedgerows

Species poor, intact hedgerows ran along the western boundary (Fig. 6) and around the bowling green (Fig. 7). The former was dominated by Blackthorn, which was encroaching into the grassland, with Hawthorn also present.

The hedgerow surrounding the bowling green was comprised largely of Honeysuckle Privet.

Figs. 6 & 7 Species poor, intact hedgerows

Introduced shrubs

Along the eastern boundary was a line of introduced shrubs planted as a hedgerow (Fig. 8), although this was gappy. Species included Cherry Laurel, gum species and rose.

Fig. 8 Introduced shrubs

Bare ground

A large area of bare ground was present which was being used as car parking.

Buildings

Three buildings were present on the site; a former social club (Fig. 9) and two small dilapidated pavilion/storage type structures associated with the bowling green (Figs. 10 and 11).

Fig. 9 Former social club

Figs. 10 & 11 Pavilions/storage buildings

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 or notifiable species – assuming the Tree Cotoneaster was a shrub associated with the landscaping around the former bowling green. This can be an invasive species in semi-natural habitats.

A list of species observed is presented in Appendix 3.

3.3 Protected species survey

3.3.1 Badgers

The site held very little habitat suitable for sett building, although the habitats were considered to be suitable for foraging purposes. Despite this, no evidence of Badger presence was recorded, such as setts, tufts of hair, pathways, footprints or latrines.

3.3.2 Bats

The tree did not support features suitable for roosting and/or hibernating bats, whilst the majority site was thought to be of low value to foraging or commuting bats, as there was little cover and it was limited in extent.

Social club

The social club had a double pitched roof, which was covered with tarred felt, this in good condition throughout (Figs. 12, 13, 14 and 15).

Figs. 12 & 13 Roof of social club

Figs. 14 & 15 Roof of social club

The gable ends were finished the roof felt wrapped over the roof ends (Fig. 16). This was generally tightly sealed, although there was a gap in the roof valley, this found to be thickly cobwebbed over (Ref. Fig. 16).

The eaves were also finished with the tarred felt roof wrapped over the roof verge and sealed to a timber fascia board (Fig. 17).

The walls were clad with timber weatherboarding, this generally tightly overlapping. However, there some lifted boards behind which gaps were noted (Figs. 18 and 19 and Ref. Fig. 17). These gaps were all closely inspected, and were found to be either too shallow to support roosting bats, or to be thickly cobwebbed and unsuitable. Furthermore Common Rat *Rattus norvegicus* presence was noted.

Fig. 16 Gable end

Fig. 17 Eaves and raised board

Figs. 18 & 19 Eaves and raised boards

The window casements and doorframes were all tightly fitting, although several of the windows were open, with the glazing also smashed in places.

Internally there was a small roof void in each pitched section (Figs. 20 and 21), this open to the underside of the timber roof, onto which the tarred felt had been laid.

The roof void measured approximately 0.5 m high and ran the full length of each of the pitched roofs.

Figs. 20 & 21 Roof voids

No evidence of bat activity or occupation was found in or around the social club and in its current condition it was considered unsuitable for bat roosting.

Pavilions/storage buildings

The two pavilion/storage structures at the northern end of the site were considered highly unsuitable for roosting bats due to a lack of any crevices or cavities, and brightly illuminated interiors (Figs. 22 and 23).

Figs. 22 & 23 Interiors of buildings

One of the buildings was of timber construction with a flat roof, open to the inside, whilst the other was a pre-cast concrete building with a shallow pitched roof of corrugated fibre cement.

No evidence of bat activity or occupation was found in or around either of the buildings.

3.3.3 Birds

A total of five species of bird were observed during the visit, of which one was a Species of Medium Conservation Concern (RSPB Amber list); Dunnock. The rest were all Species of Low Conservation Concern (RSPB Green list).

No old or in-use birds' nests were found, although the tree and shrubs did provide some potentially suitable habitat for nesting.

A full list of species noted is given in Appendix 4.

3.3.4 Great Crested Newts

The site was considered highly unsuitable for amphibians, as it was very dry, with no permanent or ephemeral still water or wetland features, no potential refugia or hibernacula, and limited foraging areas. As such the presence of Great Crested Newts or other amphibians is considered unlikely.

3.3.5 Otters

No evidence of Otter was found during the survey.

3.3.6 Reptiles

The site was considered to be of negligible interest to reptiles for the same reason that it is unlikely to be used by amphibians.

3.3.7 Water Voles

No evidence of Water Voles was found on or immediately around the site, and they are considered to be absent.

3.3.8 Invertebrates

Since the majority of the site consisted of poor, semi-improved grassland, it was concluded that there was low potential for significant or notable 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

No other important or notable species were recorded during the site visit, although there was extensive Rabbit activity around the area.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Site evaluation

The site was concluded to be of low wildlife interest.

The grassland was not diverse in grasses or wildflowers, and was limited in extent, although it would hold some value for invertebrates, small mammals, and foraging birds.

None of the trees or shrubs on the site supported features suitable for roosting and/or hibernating bats, whilst the majority of the site was thought to be of low value to foraging or commuting bats, as it was mostly buildings, hardstanding and amenity grass.

The buildings were considered unsuitable for roosting bats, despite the presence of gaps in the weatherboarding, and no evidence of bat activity or occupation was found.

No evidence of breeding birds, particularly in the form of nests, was recorded on the land, although the trees and shrubs were considered to hold some potential for nesting birds.

There were no signs of Otters or Water Voles and no evidence of Badgers, although there was extensive Rabbit activity.

The site was unsuitable for reptiles and amphibians, due to a lack of any permanent or ephemeral still water or other wetland features, no refugia or hibernacula and limited foraging opportunities.

Since the majority of the site consisted of buildings and bare ground, it was concluded that there was low potential for significant or notable invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

It is considered that none of the designated sites or species recorded in the data search will be impacted on by the proposed development, as there was no direct connectivity, and they were separated from the application site by intervening land use, including a row of residential housing.

4.2 Possible impacts of proposed work and recommendations

The main impact of any development will be on the semi-natural habitat noted above.

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.

Although no evidence of reptiles or amphibians was found, the potential for small mammals to be present on site exists, and thus care should be taken at all times during any vegetation removal and topsoil stripping. Any small mammals disturbed or uncovered should 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. If trenches cannot be infilled immediately then they should either be covered overnight or escape routes should be provided. 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.

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 trees and/or shrubs to be removed will be required.

No other surveys are considered necessary.

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APPENDICES

Appendix 1: Phase 1 Habitat Survey Map

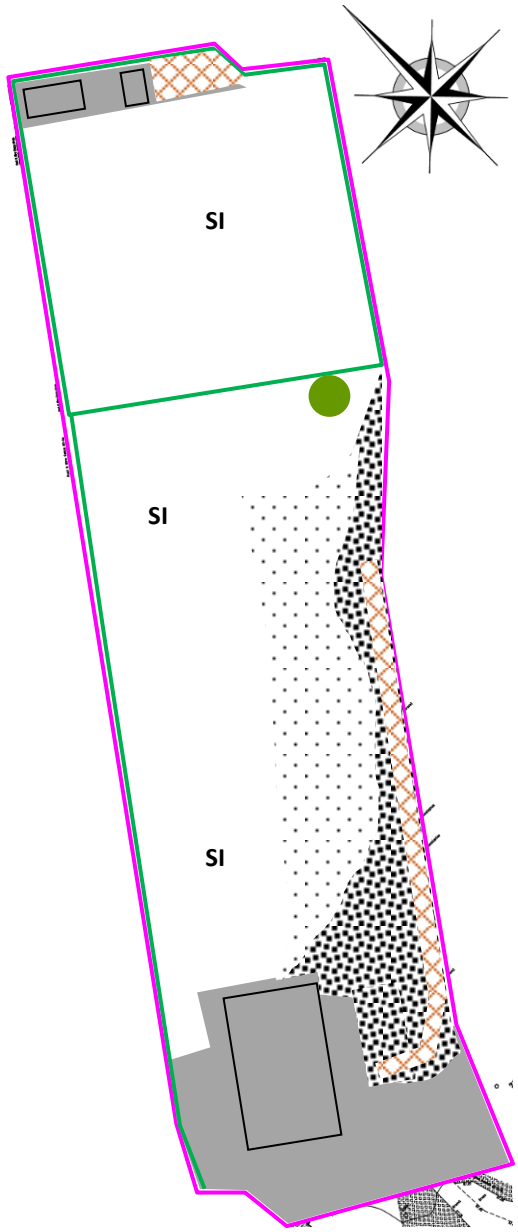
Appendix 2: Target Notes

Appendix 3: Plant species list

Appendix 4: Bird species list

Appendix 5: Relevant legislation

Appendix 1: Phase 1 Habitat Survey Map



Not to scale

Legend

- Survey Boundary
- SI — Poor, semi-improved grassland
- Scattered trees
- Introduced shrubs
- Short perennial vegetation
- Hardstanding
- Bare ground
- Species poor, intact hedgerows
- Target Note

Appendix 2: Target Notes

No Target Notes

Appendix 3: Plant species list

Latin name	**Common name**
Eucalyptus sp.	Gum species
Prunus laurocerasus	Cherry Laurel
Crataegus monogyna	Hawthorn
Prunus spinosa	Blackthorn
Rosa sp.	Rose
Lonicera pileate	Honeysuckle Privet
Lamium alba	White Dead-nettle
Geranium molle	Dovesfoot Cranesbill
Potentilla reptans	Creeping Cinquefoil
Medicago arabica	Spotted Medick
Achillea millefolium	Yarrow
Vicia sp.	Vetch
Rumex crispus	Curled Dock
Helminthotheca echioides	Bristly Ox-tongue
Sonchus asper	Prickly Sow-thistle
Senecio jacobaea	Ragwort
Urtica dioica	Common Nettle
Ranunculus repens	Creeping Buttercup
Cerastium fontanum	Common Mouse-ear
Trifolium repens	White Clover
Plantago lanceolata	Ribwort Plantain
Taraxacum Section *Vulgaris*	Dandelion
Festuca rubra	Creeping Fescue

Dactylis glomerata	Cocksfoot
Poa trivialis	Rough Meadow-grass
Lolium perenne	Perennial Ryegrass
Arrhenatherum elatius	False Oatgrass

Appendix 4: Bird species list

Common name	**Latin name**
Dunnock	*Prunella modularis*
Robin	*Erithacus rubecula*
Great Tit	*Parus major*
Blue Tit	*Cyanistes caeruleus*
Magpie	*Pica pica*

Appendix 5: Relevant legislation

5.1 – 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.

5.2 – 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.*

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Cotswold Country Club, Bunkers Hill, Kidlington – Preliminary Ecological Appraisal

To: Keble Homes

Report Number: 2970-CWS-01

Version: 01

Date: 24th January 2018