

Ms S Scheiber

**Duntisbourne House
Cirencester**

Ecological Report

**Job No: 203237
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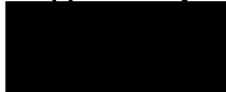
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1.0 INTRODUCTION

Overview

1.1 AA Environmental Limited (AAe) has been commissioned by Ms S Scheiber to carry out an ecological survey of the proposed development at Duntisbourne House, Cirencester. The aims of the survey were to:

- provide a description of the existing habitat types;
- determine the existence and location of any ecologically valuable areas; and
- identify the presence of any protected species.

1.2 This information will serve to assess the ecological impact of the proposals and identify any ecological constraints and/or mitigation measures required and also identify any enhancement measures that may be available.

1.3 The proposed development relates to a new private equestrian facility comprising a change of use from agriculture, erection of an indoor riding arena with linked stable building, outdoor riding arena, sand paddocks, gallops, associated infrastructure, demolition of two outbuildings and construction of a temporary access track for construction purposes. It is anticipated that the majority of the trees and boundary vegetation will be retained and protected during the works.

Site Description

1.4 The site is located off Crabtree Lane, Duntisbourne Abbots, Cirencester centred at National Grid Reference: SO 955063 and covers approximately 3.66 hectares. The site was dominated by grassland with some boundary vegetation, scrub, woodland, individual trees and a few buildings also present. The site is bordered by a field to the east, Crabtree Road to the south, Duntisbourne House and its associated grounds to the west and a field and woodland to the north (Figure 1).

2.0 METHODOLOGY

General

2.1 The study comprised two key phases: a desk-top study; and a walk-over field survey. The study was undertaken with reference to the Institute of Environmental Assessment's '*Guidelines for Baseline Ecological Assessment*' (1995), Chartered Institute of Ecology and Environmental Management (CIEEM) '*Guidelines for Preliminary Ecological Appraisal*' (2017) and BS 42020: 2013 '*Biodiversity - Code of practice for planning and development*'.

Desk-top Study

2.2 Gloucestershire Centre for Environmental Records (GCER) was consulted to obtain baseline data held for the site and the surrounding 2 km area.

2.3 In addition, as certain baseline data is now readily available on the internet, the Multi-agency website (<http://magic.defra.gov.uk/>) was consulted to determine whether any part of the site or nearby habitats have been statutorily or otherwise designated and a review of Google Earth's satellite imagery (http://www.google.co.uk/intl/en_uk/earth/index.html) was completed to determine past land uses of the site and surrounding land.

Field Survey

2.4 It was necessary to supplement the information obtained from the desk-top study with a walk-over field survey, in order to:

ascertain whether, while the site itself or nearby habitats might not be covered by any ecological designations, they could be of ecological interest and/or contain protected species; and
establish the ecological value of the site in order for the overall disturbance to ecosystems within the area to be fully evaluated.

- 2.5 The walk-over survey of the site was carried out on Wednesday 12 August 2020. The dominant plant species were recorded and habitats classified according to their vegetation types and presented in the standard Phase 1 habitat survey format (Joint Nature Conservation Committee, 2010). The weather conditions at the time of survey were: 20% cloud cover; wind speed 1 (Beaufort scale); temperature 19°C; and no precipitation.

Habitat Evaluation

- 2.6 By applying recognised criteria produced by Ratcliffe (1977), the following seven-point scale was used to rank the importance of the habitat types and species they support. The value of each habitat was ranked according to its importance in a local context (a summary of the Ratcliffe criteria is attached at Appendix A):

low value;
low to intermediate value;
intermediate value;
intermediate to high value;
high value (Local/District importance);
very high value (County importance e.g. Site of Importance for Nature Conservation (SINC), County Wildlife Site); and
exceptional value (National importance e.g. Site of Special Scientific Interest (SSSI)).

Fauna

- 2.7 Particular attention was paid to record the presence of/ or suitable habitat for badgers, Barn Owls, bats and herpetofauna (amphibians and reptiles) that may be present on the site or within adjacent habitats, in accordance with the following survey methodologies:

Badgers

- 2.8 Badgers (*Meles meles*) and their setts are protected by *The Protection of Badgers Act 1992*, under which it is an offence to harm badgers or their setts. A sett is defined as “*any structure or place which displays signs indicating current use by a badger*”. Natural England has provided the following guidance on the interpretation of current use:

A sett is defined as such (and thus protected) as long as signs indicative of ‘current use’ are present. Thus, a sett remains protected by the Act until such times as the signs (i.e. ‘field signs’) have deteriorated or decayed to such an extent that they indicate that the sett is no longer in ‘current use’.

- 2.9 A thorough survey of the whole site and adjacent habitats, where access was available, was carried out. Particular attention was paid to dense areas of vegetation to check for any evidence of badger activity, which is usually detected by any one or more of the following signs:

presence of holes with evidence of badger such as footprints, discarded hair, etc.;;
presence of dung pits and latrines;
presence of well used runs with subsidiary evidence of badger activity; and
presence of other indications of badger activity, such as signs of foraging and footprints.

Barn Owls

- 2.10 Barn Owls (*Tyto alba*) are listed on Schedule 1 of the *Wildlife and Countryside Act 1981 (as amended)*, which prohibits the intentional killing, injuring or taking of any wild bird and the taking, damaging or destroying of the nest, or eggs, at all times throughout the year.

- 2.11 A thorough survey of each building was carried out to check for any evidence of Barn Owls, which is usually detected by any one or more of the following signs:

presence of Barn Owls themselves or their young;
presence of 'white-wash' caused by droppings beneath favoured roost sites; and
presence of owl pellets. Barn Owl pellets can be distinguished from other species of owls as when fresh they appear moist, jet black in colour. They dry into hard compressed pellets, with a fairly smooth and glossy surface.

Bats

- 2.12 Currently there are 17 species of bat known to breed in the UK. All species and their roosts are protected under Regulation 41 of *The Conservation of Habitats and Species (Amendment) Regulations 2012*. As a signatory to the *Bonn Convention* (Agreement on the Conservation of Bats in Europe) the UK is also required to protect their habitats. This legislation makes it illegal to kill, injure, capture or disturb bats or to obstruct access to, damage or destroy bat roosts. Under the law, a roost is any structure or place used for shelter or protection.
- 2.13 A visual survey of the site was completed to record any evidence of bats or features that could provide potential roosting opportunities. The survey was carried out following the guidelines provided by the Bat Conservation Trust¹. A thorough internal and external examination of the existing buildings on the site was carried out, with any potential access points inspected for evidence of bats.
- 2.14 In addition, a careful inspection of each tree on the site was carried out to identify those features that are important for roosting bats. Surveying trees presents particular problems at any time of the year as bats will use a wide variety of roost sites in cavities, splits, cracks, knotholes and under loose bark, many of which are not easily detected from the ground. Each tree was assessed in accordance with the following criteria:
- Negligible** – negligible habitat features likely to be used by roosting bats.
Low – a tree of sufficient size and age to contain potential roosting features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
Moderate – a tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High – a tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- 2.15 The surrounding habitat was also surveyed to identify any important features such as mature trees with suitable features for roosting bats and any established lines of vegetation that might provide important flightlines.
- 2.16 Evidence of bats is usually detected by any one or more of the following signs:
- the presence of bat droppings, which tend to accumulate under established roost sites or at roost entrances;
the accumulation of large numbers of moth wings, which have been discarded by feeding bats;
areas of staining by urine or from fur rubbing; and
the presence of bats themselves or their corpses.
- 2.17 The visual survey was facilitated by the use of binoculars, ladders, powerful torches (1M candlepower) and a Ridgid micro CA-350 inspection camera endoscope. A heterodyne bat detector (Pettersson D200) was also utilised to record any bat calls during the survey.

¹ Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition). The Bat Conservation Trust, London.

Herpetofauna

Amphibians

- 2.18 All amphibian species have some level of protection under *The Wildlife and Countryside Act 1981 (as amended)*. Great crested newts (*Triturus cristatus*) are protected under *The Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The intentional or reckless killing, injury or taking, and intentional or reckless disturbance of great crested newts whilst occupying a 'place used for shelter or protection', is prohibited, as is the destruction of these places.

Reptiles

- 2.19 All reptile species are protected at some level under Schedule 5 of the *Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The more common species of reptiles, which include slow-worm (*Anguis fragilis*), common or viviparous lizard (*Zootoca vivipara*), adder (*Vipera berus*) and grass snake (*Natrix helvetica*) are protected by the *Wildlife and Countryside Act 1981 (as amended)* by part of *Section 9(1)* and all of *Section 9(5)*. This means that they are protected against intentional or reckless killing and injuring (but not 'taking') and against sale and transporting for sale.
- 2.20 An assessment of the site was carried out to determine its suitability for herpetofauna by recording the habitats present. In addition, any natural/artificial refugia present on the site was lifted to check for any sheltering animals or evidence of animals, such as sloughs (shed skins).

Other Species

- 2.21 In accordance with good practice, the site was checked for any evidence of other protected species or species of particular note.

3.0 RESULTS

Desk-top Study

- 3.1 A summary of the baseline data obtained from GCER has been provided and detailed in Table 1; due to sensitivity of the data the report produced by GCER cannot be reproduced but the Local Planning Authority can request the information.
- 3.2 Whilst the site is located within the Cotswolds Area of Outstanding Natural Beauty (AONB) there are no ecological statutory designated sites located on or directly adjacent to the site, or within 2 km of the site. There are a number of non-statutory designated sites located within the 2 km search area, the nearest being Francombe Wood Complex Local Wildlife Site (LWS), located 0.1 km to the south-east of the site. A full list of designated sites within the 2 km study area is provided in Table 1.
- 3.3 GCER returned no records of protected species on the site itself but there are a number of records within the 2 km study area, as detailed in Table 1.
- 3.4 According to the Multi-agency website, the area occupied by the existing buildings on the site is noted as Deciduous Woodland, a Habitat of Principal Importance (HPI) on to the site. Additional areas of Deciduous Woodland were located adjacent to the western and northern boundaries of the site.
- 3.5 Historic satellite imagery shows that the majority of the site has been dominated by grassland since at least 1999. The northern section of the site, noted as Deciduous Woodland, was dominated by buildings and grassland in 1999 with some new buildings constructed and the grassland cleared to leave bare ground/hardstanding sometime between 2017 and 2019.

Table 1: Summary of Data Search Results (GCER)

Statutory Designated Sites		
Description	Protection/designation	Distance/direction
Juniper Hill, Edgeworth	Site of Special Scientific Interest	2.50 km to the W
Non-Statutory Designated Sites		
Description	Protection/designation	Distance/direction
Francombe Wood Complex	Local Wildlife Site (LWS)	0.11 km to the SSE
River Frome	LWS	0.40 km to the SSW
Edgeworth Mill Bank	LWS	0.42 km to the W
Duntisbourne Common	LWS	0.51 km to the NNW
Edgeworth Mill Wood	LWS	0.51 km to the NW
Thick Wood	LWS	0.76 km to the NNW
Cirencester Park Woods	LWS	0.87 km to the SE
The Leasowes	LWS	1.24 km to the SSE
Ashcombe Bottom	LWS	1.27 km to the NNW
Waiteshill Plantation (Parson's Hill)	LWS	1.48 km to the NNW
Bull Banks	LWS	1.50 km to the N
Ford Wood	LWS	1.74 km to the S
Duntisbourne	Conservation Road Verge (CRV)	0.34 km to the NE
Edgeworth Stone Wall	CRV	0.86 km to the SW
Tunley-Dane Lane	CRV	1.75 km to the SSW
Protected/notable Species (Specific Grid References)		
Description	Protection/designation	Distance/direction
Hazel Dormouse (<i>Muscardinus avellanarius</i>)	European Protected Species, Protected Species & Priority Species	0.35 km to the S
Spotted Flycatcher (<i>Muscicapa striata</i>)	Priority Species	0.35 km to the S
Brown Hare (<i>Lepus europaeus</i>)	Protected Species, Priority Species	0.46 km to the W
Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	0.55 km to the ESE
Eurasian Badger (<i>Meles meles</i>)	Badgers Act (1992)	0.7 km to the S
House Sparrow (<i>Passer domesticus</i>)	Priority Species	0.74 km to the SSE
Grass Snake (<i>Natrix helvetica</i>)	Protected Species & Priority Species	0.74 km to the SSE
White Admiral (<i>Limenitis camilla</i>)	Priority Species	0.75 km to the NW
Linnet (<i>Linaria cannabina</i>)	Priority Species	0.75 km to the NW
Red Kite (<i>Milvus milvus</i>)	Protected Species	0.78 km to the S
Starling (<i>Sturnus vulgaris</i>)	Priority Species	1.09 km to the ENE
Shaded Broad-bar (<i>Scotopteryx chenopodiata</i>)	Priority Species	1.14 km to the NNE
Common Crossbill (<i>Loxia curvirostra</i>)	Protected Species	1.18 km to the S
West European Hedgehog (<i>Erinaceus europaeus</i>)	Priority Species	1.56 km to the NNW
Reed Bunting (<i>Emberiza schoeniclus</i>)	Priority Species	1.61 km to the NW
Adder (<i>Vipera berus</i>)	Protected Species & Priority Species	1.75 km to the E
Brown/Sea Trout (<i>Salmo trutta</i>)	Priority Species	1.82 km to the SSE
Common Lizard (<i>Zootoca vivipara</i>)	Protected Species & Priority Species	1.92 km to the ESE
Lesser Spotted Woodpecker (<i>Dendrocopos minor</i>)	Priority Species	1.92 km to the NW
Lapwing (<i>Vanellus vanellus</i>)	Priority Species	1.93 km to the ESE
Cuckoo (<i>Cuculus canorus</i>)	Priority Species	1.96 km to the NW
Turtle Dove (<i>Streptopelia turtur</i>)	Priority Species	1.99 km to the N
Corn Bunting (<i>Emberiza calandra</i>)	Priority Species	2.01 km to the NW
Yellowhammer (<i>Emberiza citrinella</i>)	Priority Species	2.01 km to the NW
Protected/notable Species (Non-specific Grid References)		
Description	Protection/designation	Distance/direction
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	Adjacent 1 km grid square
White-clawed Freshwater Crayfish (<i>Austropotamobius pallipes</i>)	European Protected Species, Protected Species & Priority Species	Adjacent 1 km grid square

Marsh Tit (<i>Poecile palustris</i>)	Priority Species	Adjacent 1 km grid square
Dunnock (<i>Prunella modularis</i>)	Priority Species	Adjacent 1 km grid square
Grizzled Skipper (<i>Pyrgus malvae</i>)	Priority Species	Adjacent 1 km grid square
Bullfinch (<i>Pyrrhula pyrrhula</i>)	Priority Species	Adjacent 1 km grid square
Herring Gull (<i>Larus argentatus</i>)	Priority Species	Adjacent 1 km grid square
Small Heath (<i>Coenonympha pamphilus</i>)	Priority Species	Adjacent 1 km grid square
Bluebell (<i>Hyacinthoides non-scripta</i>)	Protected Species	Adjacent 1 km grid square
Peregrine (<i>Falco peregrinus</i>)	Protected Species	Adjacent 1 km grid square
Hobby (<i>Falco subbuteo</i>)	Protected Species	Adjacent 1 km grid square
Brambling (<i>Fringilla montifringilla</i>)	Protected Species	Adjacent 1 km grid square
Roman Snail (<i>Helix (Helix) pomatia</i>)	Protected Species	Adjacent 1 km grid square
Duke of Burgundy (<i>Hamearis lucina</i>)	Protected Species & Priority Species	Adjacent 1 km grid square
Pearl-bordered Fritillary (<i>Boloria euphrosyne</i>)	Protected Species & Priority Species	Adjacent 1 km grid square
Common Frog (<i>Rana temporaria</i>)	Protected Species (against sale)	Adjacent 1 km grid square
Common Toad (<i>Bufo bufo</i>)	Protected Species (against sale) & Priority Species	Adjacent 1 km grid square
Song Thrush (<i>Turdus philomelos</i>)	Priority Species	Different 1 km grid square
Tree Sparrow (<i>Passer montanus</i>)	Priority Species	Different 1 km grid square
Grey Partridge (<i>Perdix perdix</i>)	Priority Species	Different 1 km grid square
Dingy Skipper (<i>Erynnis tages</i>)	Priority Species	Different 1 km grid square
Fieldfare (<i>Turdus pilaris</i>)	Protected Species	Different 1 km grid square
Redwing (<i>Turdus iliacus</i>)	Protected Species	Different 1 km grid square
Lesser Redpoll (<i>Carduelis cabaret</i>)	Priority Species	10 km grid square
Goshawk (<i>Accipiter gentilis</i>)	Protected Species	10 km grid square
Kingfisher (<i>Alcedo atthis</i>)	Protected Species	10 km grid square
Slow-worm (<i>Anguis fragilis</i>)	Protected Species & Priority Species	10 km grid square
Skylark (<i>Alauda arvensis</i>)	Priority Species	10 km grid square

NB: All distances are calculated from the centre of the site, National Grid Reference: SO 955063

European Protected Species = species listed under *The Habitats Directive Annexes II and IV*.

Protected Species = species listed under the *Wildlife and Countryside Act 1981 (as amended)* Schedules 1, 5 and 8.

Priority Species = species listed under the *Natural Environment and Rural Communities (NERC) Act 2006* Section 41.

Field Survey

Introduction

- 3.6 The results of the survey are presented as a series of habitat descriptions for each of the areas on the site. The Phase 1 Habitat Plan is shown on Figure 2 and the habitat descriptions should be read in conjunction with this Plan. An indicative plant species list is attached at Appendix B (nomenclature follows Stace, 2010) and a series of site photographs is attached at Appendix C.

Habitat Types and Evaluation

Buildings and Hardstanding

- 3.7 A number of buildings and associated hardstanding areas were located to the north-west of the site with two buildings also located just outside the red line boundary (B4 and B5). A description of each building is provided in Table 2.

Table 2: Building Descriptions

Ref	Title	Description	Impact
B1	Garage	Breeze block walls with corrugated metal roof and iron frame. Corrugated metal garage style doors. No separate roof space.	To be demolished
B2	Workshop	Breeze block walls with a corrugated metal roof insulated with PIR (Celotex) boards. No separate roof space.	To be demolished
B3	Plant Room	Breeze block walls with a slate tiled roof and timber slatted doors. No separate roof space.	To be retained
B4	Garage	Open fronted garage constructed with breeze block walls and a corrugated metal roof. No separate roof space.	Outside the red line boundary. To be retained
B5	Storage Barn	Breeze block construction with a slate tiled roof lined with a bitumen based felt. Southern section had an open front with the northern section modified to provide a bat roost with approximately 30 lesser horseshoe bats (<i>Rhinolophus hipposideros</i>) recorded. Swallow (<i>Hirundinidae sp.</i>) nests recorded in the southern section	Outside the red line boundary. To be retained

- 3.8 The buildings were of overall limited value for wildlife with B5 a confirmed bat roost and provides nesting opportunities for birds.

Habitat value: Low (B1-B4) to High (B5)

Semi-Improved Grassland

- 3.9 The site was dominated by a managed field, dominated by perennial rye-grass (*Lolium perenne*), cock's foot (*Dactylis glomerata*) and false oat-grass (*Arrhenatherum elatius*). Forbs were limited and included dandelion (*Taraxacum* agg.), buttercup (*Ranunculus sp.*), creeping thistle (*Cirsium arvense*), common nettle (*Urtica dioica*), broad-leaved dock (*Rumex obtusifolius*) and ground ivy (*Glechoma hederacea*).

- 3.10 The grassland provides open spaces and foraging habitat for a range of common species, however the management regime reduces their overall ecological value.

Habitat value: Low

Dense Scrub

- 3.11 There was an area of recently planted dense scrub and species recorded included holly (*Ilex aquifolium*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), maple (*Acer sp.*) and conifer (*Cupressaceae sp.*).

- 3.12 The area of scrub was recently planted and too restricted to provide any significant foraging opportunities for wildlife.

Habitat value: Low

Individual Trees

- 3.13 The majority of the trees were recorded around the site boundaries. Semi-mature and mature species present included sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), Scots pine (*Pinus sylvestris*), beech (*Fagus sylvatica*), cherry (*Prunus sp.*), rowan (*Sorbus aucuparia*), horse chestnut (*Aesculus hippocastanum*) and lime (*Tilia x europaea*). Also recorded as a shrub layer/ground flora included hawthorn, elm (*Ulmus sp.*), elder (*Sambucus nigra*), herb Robert (*Geranium robertianum*), wood avens (*Geum urbanum*), bramble (*Rubus fruticosus* agg.), dogs

mercury (*Mercurialis perennis*), lords-and-ladies (*Arum maculatum*), rosebay willowherb (*Chamerion angustifolium*), traveller's-joy (*Clematis vitalba*) and common nettle.

- 3.14 The trees provided shelter and foraging opportunities for various species and bird nesting habitat and are consequently were of some ecological value.

Habitat value: Intermediate

Hedgerow

- 3.15 There was a recently planted hedgerow along a section of the western site boundary and species recorded included hawthorn, hazel, beech, dogwood (*Cornus sp.*) and spindle (*Euonymus europaeus*).

- 3.16 The hedgerow will provide some limited bird nesting habitat and foraging opportunities for common species.

Habitat value: Low to intermediate

Fauna

Badgers

- 3.17 No evidence of badgers or their setts was recorded on or adjacent to the site.

Barn Owls

- 3.18 No evidence of Barn Owls was found within any of the buildings. The buildings were either well sealed with no suitable access points and/or did not provide suitable roosting/nesting opportunities due to their construction type.

Bats

- 3.19 No evidence of bats was recorded in the two buildings to be demolished (B1 and B2). The two buildings were considered to provided unsuitable roosting opportunities for bats due to construction type and condition (lacking any separate roof spaces or suitable crevice dwelling features). The northern end of B5, located outside of the site boundary, supports an important bat roost and the building is scheduled to be retained and protected.

- 3.20 The majority of the trees recorded on the site, either due to their age and/or species, lacking any PRFs were assessed to provide **negligible** roosting opportunities for bats. A number of the mature trees, all of which are scheduled to be retained were assessed to provide **Low to Moderate** roosting opportunities. The boundary trees provided some sheltered foraging habitat for bats.

Herpetofauna

- 3.21 There were no ponds on the site which could provide breeding opportunities for amphibian. The site, dominated by managed grassland, provided sub-optimal habitat for herpetofauna. In addition, despite a careful search of the site, no species of herpetofauna was found sheltering under any refugia lifted.

Other Wildlife

- 3.22 Apart from a few common species of birds, either recorded on the site or flying overhead, no other species of any note were recorded.

4.0 DISCUSSION AND RECOMMENDATIONS

- 4.1 The proposed development relates to a new private equestrian facility comprising a change of use from agriculture, erection of an indoor riding arena with linked stable building, outdoor riding arena, sand paddocks, gallops, associated infrastructure, demolition of two outbuildings and construction of a temporary access track for construction purposes. It is anticipated that the majority of the trees and boundary vegetation will be retained and protected during the works. There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The scheme has been designed sensitively with the establish boundary vegetation. The storage barn (B5), which supports an important roost and is located outside of the site boundary, is scheduled to be retained and protected.
- 4.2 Although there are considered to be no ecological constraints to the works, a series of generic mitigation measures, as detailed below, will be implemented to reduce any impact the development proposals would have on local wildlife. In addition, a range of enhancement measures will be incorporated so as to increase the biodiversity value of the site in accordance with Government guidance as set out in in National Planning Policy Framework (NPPF) 2019².
- 4.3 It should be noted that all species of wild bird and their nests are protected under the *Wildlife and Countryside Act 1981 (as amended)*. Therefore, in order to avoid contravention of current legislation, any site works likely to affect potential bird nesting habitat should be timed to avoid the main bird nesting season, which, in general, runs from March to August inclusive. If this is not possible, a check should be carried out prior to any clearance works to ensure there are no active nests present.
- 4.4 In order to protect any established boundary vegetation to be retained, suitable fencing may be required at certain locations to reduce the possibility of any damage that could be caused during the works. To minimise accidental damage, any overhanging branches should be pruned back to suitable live growth points. All works should be undertaken by a suitably qualified and experienced specialist contractor and should conform to current industry best practice, i.e. BS 3998: 2010 '*Tree Work - Recommendations*'. The retention of these features will maintain existing habitat currently utilised by local wildlife.
- 4.5 As part of the proposals, soft landscaping will be carried out. Where any new planting is proposed it should aim to use native species, but where this is not practicable then species of known value for wildlife can be used. In particular, flowering plants will be of benefit to invertebrate species and shrubs and trees may provide nesting opportunities for birds once they become established.
- 4.6 The site could be further enhanced by providing roosting and nesting opportunities for bats and birds, by installing a series of bat and bird boxes on suitable vegetation to be retained and/or in suitable locations on the new build. Any boxes installed will be positioned in accordance with good practice.
- 4.7 The effects of lighting on plants and animals are difficult to assess, but it is thought that lighting can adversely affect invertebrates, birds and bats. Although the site currently experiences light spillage from on-site sources and neighbouring properties and roads, in accordance with good practice, any new lighting to be introduced should be designed to minimise light spillage and pollution and not directed onto the storage barn (B5), boundary vegetation or any bird/bat boxes installed.
- 4.8 Any new boundary treatment should be designed to promote permeability of the site to minimise fragmentation and allow free movement of wildlife throughout the site, for example by strengthening/enhancing the existing boundary vegetation, planting up a series of new hedgerows and/or installing post and rail fences. If close boarded fences are required for security reasons these should be minimised and raised slightly off the ground (c. 150-200 mm) to allow animals to pass underneath.

² Ministry of Housing, Communities and Local Government (2019). *National Planning Policy Framework*. London.

- 4.9 Although no evidence of bats was recorded in the two buildings to be demolished, all site operatives should be made aware of current legislation protecting bats and their roosts. In the unlikely event of any bats being encountered on the site, then works should stop immediately and Natural England or AAe contacted so that appropriate advice can be provided. **NB although B5 is scheduled to be retained and protected, if any works are required then a European Protected Species Licence is highly likely to be required.**
- 4.10 Although the existing established trees are scheduled to be retained, in the event that any of the more mature trees require felling then a further assessment may be required (such as a tree climbing inspection) to determine presence/absence of bats, with appropriate mitigation implemented, as necessary.

5.0 CONCLUSIONS

- 5.1 The proposed development relates to a new private equestrian facility comprising a change of use from agriculture, erection of an indoor riding arena with linked stable building, outdoor riding arena, sand paddocks, gallops, associated infrastructure, demolition of two outbuildings and construction of a temporary access track for construction purposes. It is anticipated that the majority of the trees and boundary vegetation will be retained and protected during the works. An ecological survey has been carried out, supplemented by obtaining available baseline data from GCER. The findings from the survey and review of baseline data have provided sufficient information to fully assess the impact of the proposals on species and/or features of ecological/biodiversity value.
- 5.2 There are no statutory or non-statutory designated sites that would be directly affected by the proposals. Aside from the storage barn and boundary trees, both of which are scheduled to be retained, the site is of overall limited ecological value, with the species recorded described as common or abundant and are found in similar places across much of Britain.
- 5.3 Overall the findings of this ecological appraisal would indicate that there are no over-riding ecological constraints to the development proposals to preclude planning permission being granted subject to appropriately worded conditions. A range of generic mitigation/enhancement measures have been suggested and, if implemented effectively, would reduce the impact of the works on local wildlife and increase the nature conservation value of the site and surrounding area in the long term, in accordance with Government guidance as set out in National Planning Policy Framework.

203237/JDT

AA Environmental Limited

January 2021

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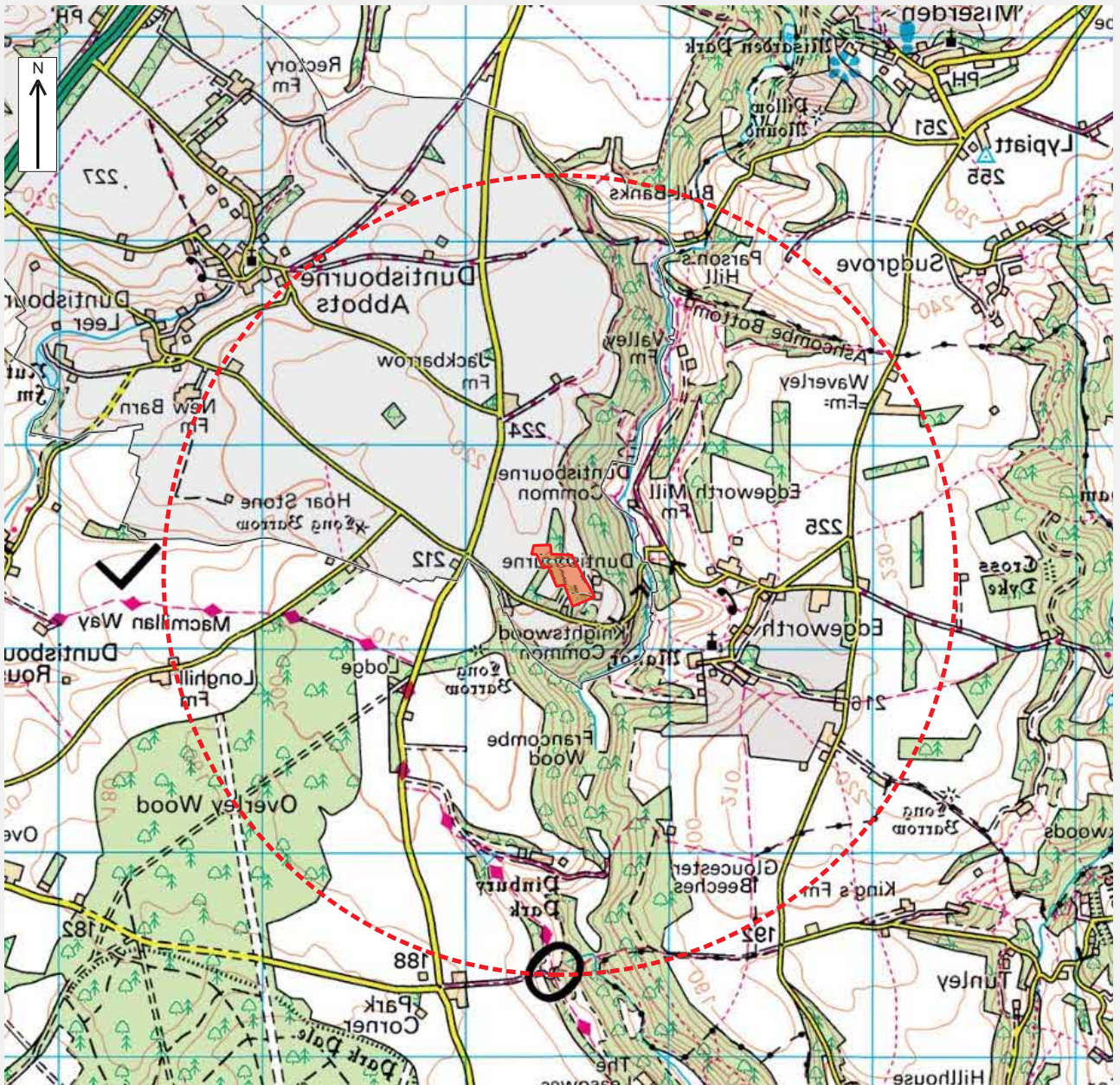
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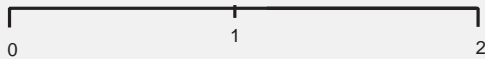
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Figures




Scale (km)



KEY

Site Boundary: 	UK Location: 
2 km Study Area: 	
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Rev.	Details	Drawn Chkd.	Date
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Project
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 Duntisbourne House
 Cirencester

Title
 Location Map

Scale As shown	Date 21.01.2021	Drawn LT	Chkd. JDT	Drq. No. Figure 1	Rev.
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KEY

	Site Boundary (Indicative)
	SI Semi-improved Grassland
	Buildings and Hardstanding
	Individual Tree
	Dense Scrub
	Hedgerow
	Building Reference

Rev.	Details	Drawn Chkd.	Date
Project 203237 Duntisbourne House Cirencester			
Title Phase 1 Habitat Plan			
 AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: (01235) 536042 F: (01235) 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk			
Scale As shown	Date 21.01.21	Drawn LT	Chkd. JDT
Drg. No. Figure 2		Rev.	

Appendix A

Summary of Ratcliffe Criteria

Fragility – some habitats, communities and species are particularly sensitive to environmental change and as such tend to be rare.

Rarity – the threat of loss of a particular habitat or species lends value to the organism and the site it occupies. Whether a species has rarity value is largely dependent upon the context, as a species or habitat can be internationally rare, but relatively common locally or nationally. Likewise, a nationally rare species can in some circumstances be more common at internationally level.

Size (area or extent) – size does play an important part in determining the ecological interest of an area, but is also a relative concept. For example, a 30 acre woodland or a one acre meadow could have a similar degree of nature conservation importance.

Diversity – the diversity of a site can be expressed in a number of ways and both low and high diversity can have a high nature conservation value under different circumstances.

Potential value – some sites have the potential to provide greater nature conservation interest than presently exists.

Position within the Ecological/Geographical Unit – a site which is near or adjacent to other similar habitats may have a higher nature conservation value than an isolated one because the range of fauna can be greater.

Typicalness – certain habitats have become important as they are good examples of what is, or has historically been, typical of the area. Efforts have been made to safeguard representative areas to prevent what was once common becoming fragmented or rare.

Recorded history – a well-documented site with detailed biological and/or natural history records presents a valuable insight into the ecology of a site. Such information is important for current and future management.

Naturalness – this is a measure of the degree to which an area has been modified by human activity. In England unmodified habitats are extremely rare being restricted to remote, inaccessible areas such as cliffs, and some saltmarshes. The bulk is either semi-improved, improved or artificial.

Intrinsic Appeal – this refers to value in a popular rather than ecological sense, and highlights the fact that value is also derived from society's preferences for landscape and other aesthetic features and is not just based on ecological considerations.

Appendix B

PLANT SPECIES LIST

<i>Acer pseudoplatanus</i>	Sycamore
<i>Acer sp.</i>	Maple
<i>Aesculus hippocastanum</i>	Horse chestnut
<i>Arrhenatherum elatius</i>	False oat-grass
<i>Arum maculatum</i>	Lords-and-ladies
<i>Chamerion angustifolium</i>	Rosebay willowherb
<i>Cirsium arvense</i>	Creeping thistle
<i>Clematis vitalba</i>	Traveller's-joy
<i>Cornus sp.</i>	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Cupressaceae sp.</i>	Conifer
<i>Dactylis glomerata</i>	Cock's-foot
<i>Euonymus europaeus</i>	Spindle
<i>Fagus sylvatica</i>	Beech
<i>Fraxinus excelsior</i>	Ash
<i>Geranium robertianum</i>	Herb-Robert
<i>Geum urbanum</i>	Wood avens
<i>Glechoma hederacea</i>	Ground ivy
<i>Ilex aquifolium</i>	Holly
<i>Lolium perenne</i>	Perennial rye-grass
<i>Mercurialis perennis</i>	Dogs mercury
<i>Pinus sylvestris</i>	Scots pine
<i>Prunus sp.</i>	Cherry
<i>Ranunculus sp.</i>	Buttercup
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rumex obtusifolius</i>	Broad-leaved dock
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan
<i>Taraxacum</i> agg.	Dandelion
<i>Tilia x europaea</i>	Lime
<i>Ulmus sp.</i>	Elm
<i>Urtica dioica</i>	Common nettle

Appendix C



Photograph 1: Showing the existing grassland on the site.




Photograph 2: Showing B1 scheduled to be demolished.



Photograph 3: Showing B2 scheduled to be demolished.



Photograph 4: Showing B5 scheduled to be retained.

Rev.	Details	Drawn	Date	
		Chkd.		
PROJECT				
Duntisbourne House Cirencester				
TITLE				
Photograph Record Sheet				
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		Scale	Date 21.01.21	Drg No.
NTS	Drawn LT	Chkd. JDT	Appendix C	

