

Preliminary Ecological Appraisal



Oxpens

On behalf of Seymour Smith Architects

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Contents

1	Executive Summary	1
2	Introduction	3
3	Methods.....	4
4	Results.....	5
5	Discussion.....	12
6	Recommendations for further survey	14
7	Relevant Legislation and Policy	15
8	References.....	19
	Appendix 1 – Photographs	20
	Appendix 2 – Site Plan	23
	Appendix 3 – Target Notes	24
	Appendix 4 – Species List	25
	Appendix 5 – Definitions of the level of Habitat Value	27
	Appendix 6 – Definitions of the level of Species Value.....	28
	Appendix 7 – Proposed Enhancements	29

1 Executive Summary

Seymour-Smith Architects on behalf of a private client seek to secure planning permission under Paragraph 79 for the construction of a new residential dwelling on land at Oxpens near Wigginton in Oxfordshire.

- The site contains semi-improved grassland, a fragment of semi-natural woodland, some plantation woodland and a man-made pond. There is a stone barn on the edge of the grassland.
- The grassland requires a National Vegetation Classification survey to assess the community present and its species-richness;
- There was evidence of roosting (but not nesting) barn owl (*Tyto alba*) in the barn;
- The pond has been surveyed using the environmental DNA technique and great crested newt (*Triturus cristatus*) are absent.
- The trees and grassland provide suitable habitat for nesting birds and some trees may have features suitable for roosting bats;
- The habitat is suitable for common reptiles and grass snake have been recorded on site;
- The habitat is likely to support foraging bats; and
- Common amphibians are highly likely to be present on the site.

1.1 Recommendations

- The proposed development will retain much of the existing habitat. Measures to improve the grassland will be confirmed following the NVC survey.
- If trees with features suitable for roosting bats are to be felled they should first be surveyed by an ecologist to assess their potential for roosting bats;
- Vegetation clearance for the development footprint should be undertaken following a precautionary method statement to protect common reptiles, and in particular grass snake;
- If any tree felling or vegetation clearance is required then following an assessment for roosting bats, this work should be undertaken in the winter months before the nesting bird season begins. The nesting bird season is considered to be March to August inclusive. Should the relevant trees not be cleared before March, a nesting bird check by an ecologist would be required before clearance. Any active nests found would need to be left undisturbed until the young birds fledge. The barn should be checked again for nesting barn owl prior to works commencing.
- Enhancements should be incorporated into the design of the development to benefit biodiversity in accordance with local and national planning policy. This should include a sensitive habitat

management plan, roosting features for crevice-dwelling bats and a nesting site for barn owls and habitat piles and refuges for common amphibians and reptiles,

- Should potential development not commence within 2 years of this report a resurvey is recommended due to the potential for ecological interest at the site to change.

2 Introduction

2.1 Background and Survey Objectives

Seymour-Smith Architects on behalf of a private client seek to secure planning permission under Paragraph 79 for the construction of a new residential dwelling on land at Oxpens near Wigginton in Oxfordshire.

The aim of the survey and supporting desk study was to satisfy the requirements of the National Planning Policy Framework and relevant legislation and to identify ecological features within or near the site that could potentially pose a constraint to the proposed works and highlight any opportunities for incorporating biodiversity enhancements into the proposals.

The objectives of this report are:

- To identify designated nature conservation sites within the vicinity of the site;
- To identify any records and/or populations of protected, notable or scarce species in the vicinity of the site;
- To record habitats or features of ecological interest within or in immediate proximity of the site;
- To record the presence of, or potential for, protected or notable species;
- To highlight potential ecological constraints and opportunities; and;
- To outline any further survey work and potential protected species requirements.

2.2 Site Description

The site is c. 7.3 ha and is situated to the west of Wigginton a small village in Oxfordshire. The site comprises grassland and plantation woodland with a manmade pond at the centre. The site is surrounded on all sides by farmland with a mixture of grazing and arable fields.

2.3 Proposed Works

The proposed development will include a residential development under Paragraph 79 along with associated hard and soft landscaping and access.

2.4 Limitations/ Constraints

The wildlife and wider ecological interest of a site can change. The report presented here is a statement of the findings of the survey carried out during April - June 2019. Any appreciable delay in making reference to this report or changes to the proposed development boundary may necessitate a re-survey.

The species information gained from local record centres is largely derived from data submitted from members of the public and volunteers. For this reason, it should be understood that the desk study may not provide an exhaustive list of all protected species that could occur in the local area.

Weather conditions were considered suitable to conduct the survey.

3 Methods

3.1 Desk Study

A desk study was carried out to identify statutory and non-statutory designated sites within 7km (Internationally designated sites) and 5km (Nationally designated sites) and records of protected or notable species within 2km of the site.

Sources consulted include:

- Thames Valley Environmental Records Centre
- The Multi-Agency Geographical Information for the Countryside - MAGIC (www.magic.gov.uk)
- Habitats and Species of Principal Importance
- Local Planning Policy documents

3.2 Preliminary Ecological Appraisal

A Preliminary Ecological Appraisal (PEA) was conducted on 4th April 2019 by Ecology by Design ecologist Lindsay Stronge using standard techniques and methodologies and the nomenclature of the New Flora of the British Isles 4th Edition (Stace, 2019). The PEA includes a survey of the habitats utilising the standard phase 1 habitat survey methodology (JNCC, 2007) as well as a scoping assessment of the presence of, or potential for protected and notable species.

3.3 Preliminary Roost Assessment

During the PEA the barn was subjected to a preliminary roost assessment by licensed bat worker Lindsay Stronge (Class 2 licence number: 2017-32403-CLS-CLS). The assessment was based on the guidance included in Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) (Collins. J, 2016).

The barn was inspected for potential bat use by examining the inside for active roosts or roosting sites and suitable entry and exit points on the exterior, and by searching for other evidence of bat activity such as droppings, smells, sounds, carcasses or food remains. A high-powered torch was used to illuminate the dark recesses and to carefully inspect any features of potential value to roosting bats.

Equipment used included:

- CluBriter Lamp
- 10x42mm close focusing binoculars
- 3.8m telescopic ladder

During the survey the barn was thoroughly inspected including:

- Roof structure - gaps in tiles, under and over wall plates where accessible.
- Walls - gaps in timber walls, between beams and the walls.
- Gaps between the weatherboards on the exterior.

Evidence searched for included:

- The presence of free hanging bats and bats within gaps, crevices.
- Bat droppings, urine stains, rub marks, scratch marks, in wall holes, timber joints, windows, rafters and beams and across the floor.
- Feeding remains scattered around the building, on wooden beams, along the ridgeline and on top of stored materials.

4 Results

4.1 Desk Study

There were no internationally designated sites within 7km of the search area, three nationally designated sites within 5km and four locally designated sites within 2km.

Table 1. Statutory designated sites

Site Name	Designations	Distance (km)	Direction
Hook Norton Cutting and Banks	SSSI	2.3	SW
Little Tew Meadows	SSSI	4.7	S
Sharp's Hill Quarry	SSSI	4.9	NW

SSSI – *Site of Special Scientific Interest*

Table 2. Non-statutory designated sites

Site Name	Designations	Distance (km)	Direction
Hayfield and Old River Bed	LWS	0.7	SE
Cradle and Grounds Farm Banks	LWS	0.8	NE
The Meanders and Peat Marsh	LWS	0.9	E
South Newington Valley Complex	LWS	1.8	NE

LWS – Local Wildlife Site

Table 3. Records of selected protected or notable species within 2km of the site:

Species	Type	Designation	Date	Distance (km)	Direction	Location
Great Crested Newt	TVERC	EPS, WCA5, S41	1977-1987	0.8	NE	Cradle and Grounds Farm Banks
Common frog	TVERC	WCA5	2009	0.9	NE	Cradle and Grounds Farm Banks
Common toad	TVERC	WCA5, S41	2003	2	W	Hook Norton
Grass Snake	TVERC	WCA5, S41	2018	2	W	Hook Norton
White-clawed Crayfish	TVERC	WCA5, S41	2010	2	W	Hook Norton Stream
Barn Owl	TVERC	WCA1	2011	1.6	SSE	Swerford
Red Kite	TVERC	WCA1	2016	1.9	E	South Newington
Hen Harrier	TVERC	WCA1, S41	2011	1.9	E	South Newington
Fieldfare	TVERC	WCA1, BOCC: Red	2011	1.9	E	South Newington
Song Thrush	TVERC	S41, BOCC: Red	2009	1.9	E	South Newington

Redwing	TVERC	WCA1, BOCC: Red	2011	1.9	E	South Newington
Bewick's Swan	TVERC	WCA1, S41, BOCC: Amber	1994	2	W	Hook Norton
Grey Partridge	TVERC	S41, BOCC: Red	2009	2	N	Wigginton heath
Quail	TVERC	WCA1, BOCC: Amber	2004	2	NE	Milcombe
Merlin	TVERC	WCA1, BOCC: Red	2011	2	NE	Milcombe
Hobby	TVERC	WCA1	2011	2	NNE	Tadmarton heath reserve, Tadmarton
Turtle Dove	TVERC	S41, BOCC: Red	2004	2	W	Hook Norton
Cuckoo	TVERC	S41, BOCC: Red	2007	2	NE	Milcombe
Grasshopper Warbler	TVERC	S41, BOCC: Red	2011	2	NNE	Tadmarton heath reserve, Tadmarton
Skylark	TVERC	S41, BOCC: Red	2011	2	W	Hook Norton
Tree Pipit	TVERC	S41, BOCC: Red	2000	2	W	Hook Norton
Yellow Wagtail	TVERC	S41, BOCC: Red	2008	2	NNE	Tadmarton heath reserve, Tadmarton
Black Redstart	TVERC	WCA1, BOCC: Red	2005	2	NNE	Tadmarton heath reserve, Tadmarton

Tree Sparrow	TVERC	S41, BOCC: Red	2007	2	NE	Milcombe
Brambling	TVERC	WCA1	2010	2	NNE	Tadmarton heath reserve, Tadmarton
European Badger	TVERC	BA	2018	<2	N/A	N/A
European Otter	TVERC	EPS, WCA5, S41	2009	0.7	SE	River Swere, Wigginton
Natterer's Bat	TVERC	EPS, WCA5	2016	1.7	NNE	Wigginton Heath
Whiskered Bat	TVERC	EPS, WCA5	2016	1.7	NNE	Wigginton Heath
Brown Long-eared Bat	TVERC	EPS, WCA5, S41	2018	2	W	Hook Norton
Common Pipistrelle	TVERC	EPS, WCA5	2018	2	W	Hook Norton
Lesser Horseshoe Bat	TVERC	EPS, WCA5, S41	2018	2	W	Hook Norton
Myotis sp.	TVERC	EPS, WCA5, S41	2018	2	W	Hook Norton
Noctule Bat	TVERC	EPS, WCA5, S41	2018	2	W	Hook Norton

BA = Protection of Badgers Act

EPS = European Protected Species

WCA5 = Wildlife and Countryside Act 1981 Schedule 5 Species

WCA1 = Wildlife and Countryside Act 1981 Schedule 1 Species

BOCC: amber/red = Birds of Conservation Concern

S41 = Natural Environment and Rural Communities Act section 41 species

4.2 Phase 1 Habitat Survey

The following habitats were recorded on site (habitat map at appendix 2 and species list at appendix 5):

- Broadleaved semi-natural woodland
- Broadleaved plantation woodland
- Dense/continuous scrub
- Scattered broadleaved trees;
- Semi-improved neutral grassland
- Standing water
- Running water
- Ditch
- Defunct hedge
- Wall
- Fence
- Hardstanding - access track

4.2.1 Broadleaved semi-natural woodland

A fragment of broadleaved semi-natural woodland is present at the narrowest point at the site where the grassland meets the plantation woodland. Here the ground flora was diverse and included many bluebells (*Hyacinthoides non-scripta*), lords-and-ladies (*Arum maculatum*) and foxglove (*Digitalis purpurea*).

4.2.2 Broadleaved plantation woodland

The previous landowner created an area of plantation woodland around twenty years ago. This was primarily formed of dozens of young ash (*Fraxinus excelsior*) specimens. The trees are planted in uniform rows and are still young. The ground flora is still primarily composed of grassland species present prior to the tree-planting although there are clumps of tufted hair-grass (*Deschampsia cespitosa*) and evidence of some developing woodland ground flora at the edges of the plantation.

4.2.3 Dense/continuous scrub

There are limited areas of blackthorn scrub (*Prunus spinosa*) in the plantation woodland and some areas of bramble (*Rubus fruticosus* agg.) scrub on the field margins and around ditches.

4.2.4 Scattered broadleaved trees

At least a dozen mature trees are present on the field boundaries around the site. These included oak (*Quercus robur*) and ash (*Fraxinus excelsior*).

4.2.5 Semi-improved neutral grassland

The grassland appeared to be semi-improved in character with species such as common bent (*Agrostis capillaris*), meadow foxtail (*Alopecurus pratensis*), cocks-foot (*Dactylis glomerata*) and sweet vernal-grass (*Anthoxanthum odoratum*) the most commonly encountered species. Some of the herbs noted at the time of the survey were cuckooflower (*Cardamine pratensis*), common knapweed (*Centaurea nigra*) and creeping cinquefoil (*Potentilla reptans*). The sward is sheep-grazed for part of the year.

4.2.6 Standing water

A man-made pond was created by the previous landowner in the plantation woodland. It is shaded and there is quite a lot of leaf litter present with little aquatic vegetation. There were some stands of Yellow iris (*Iris pseudacorus*) on the margins.

4.2.7 Running water

Water flows into and out of the man-made pond and has been redirected along ditches at the edge of the fields.

4.2.8 Ditch

A dry ditch lies on the northern side of the grassland. The creation of the woodland pond may have dried this ditch out.

4.2.9 Defunct hedge

A gappy hedge is present on the southern boundary of the site.

4.2.10 Wall

There is a small drystone wall near to the barn which separates the grassland from the woodland.

4.2.11 Fence

Stockproof fences are present on the boundaries of the grassland.

4.2.12 Hardstanding

A new access road constructed from ballast has been created from the main road to the site boundary.

4.3 Protected Species Survey Results



4.3.2 Bats

There were records of six species of bat within 2km including common pipistrelle (*Pipistrellus pipistrellus*), brown long-eared (*Plecotus auritus*), whiskered bat (*Myotis mystacinus*), lesser horseshoe (*Rhinolophus*

hipposideros), Natterer's bat (*Myotis nattereri*) and noctule (*Nyctalus noctula*). The habitat on site (grassland and many trees) are likely to support invertebrates that form food for foraging bats.

The existing stone barn was found to be of negligible potential for roosting bats. The building has low stone walls with a corrugated metal roof. There are five door sized openings. A thorough inspection found no evidence of bats such as droppings or feeding remains.

4.3.3 Birds

The trees, scrub and grassland present on the site are likely to be utilised by nesting birds. Records for multiple bird species were returned for the surrounding area including birds associated with arable farmland such as grey partridge (*Perdix perdix*), skylark (*Alauda arvensis*) and turtle dove (*Streptopelia turtur*). The barn contained many barn owl pellets and hundreds of small mammal bones with evidence that owls use tops of the low walls as a roosting site. No owls were present at the time of the survey and there was no evidence of nesting.

4.3.4 Great crested newts

There is moderate quality terrestrial habitat for great crested newts (*Triturus cristatus*) and only old records from the 1970s and 1980s were returned. There was one waterbody on site which although quite shaded, could be used by the species.

4.3.5 Hazel dormouse

No records for hazel dormouse (*Muscardinus avellanarius*) were returned and the habitat on site is suboptimal for the species.

4.3.6 Otter and Water Vole

No evidence of either species was found around the pond. Otter (*Lutra lutra*) have been recorded in the River Swere 1km to the west of the site. No records for water vole were returned.

4.3.7 Reptiles

Parts of the site, particularly areas of scrub bordering the grassland, were suitable for common reptiles and particularly grass snake (*Natrix helvetica*). A single grass snake was seen on the site near the pond in May by another contractor.

4.3.8 White-clawed crayfish

There was no suitable habitat on the site for hazel dormice or riparian species.

4.3.9 Other species

There were records for common amphibians such as frog (*Rana temporaria*) and toad (*Bufo bufo*) which are likely to breed in the woodland pond. Frog-spawn was seen at the time of the survey.

5 Discussion

5.1 Designated sites

There are three nationally designated sites within 5km and four local wildlife sites are situated within 2km.

Natural England define Impact Risk Zones around Sites of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protection Areas (SPA) and RAMSAR sites and categories of development for local authorities to determine if they need to consult Natural England regarding potential impacts upon them. The site is within the Impact Risk Zone of local SSSIs but the proposed development does not meet the criteria for consultation with Natural England. As the proposed development comprises a residential dwelling for a single family there are no anticipated impacts upon any of these sites.

5.2 Habitats

The grassland appeared to be semi-improved but the survey was conducted prior to the optimal survey season for grassland when some species may not be evident. A National Vegetation Classification survey is recommended to clarify the plant community present and its condition. This could inform a habitat management plan to improve the grassland's condition. The grassland will be retained and is not threatened by the proposed development. The majority of the woodland was low value ash plantation but the fragment of woodland present at the north of the field on the edge of the plantation had a diverse ground flora and many mature trees. This area should be protected during the course of any construction works and advice sought from an arborist to implement root protection areas etc.

5.4 Bats

There were records for six different bat species within 2km of the site. Core sustenance zones are the areas that bats are likely to forage from a known roost. (Collins, J. 2016). All of the bat species recorded possibly use the site for foraging but as the proposed development has a small footprint and the majority of the habitat is being retained no significant impact upon foraging bats is predicted. Care should be taken

when designing a lighting scheme for the development to ensure that excessive light spill that is detrimental to wildlife is avoided. When an exact design for a development is finalised any trees proposed for removal should first be assessed for their potential for roosting bats.

The open fronted nature of the barn means that there is little temperature stability inside and there was no evidence of bats such as droppings or feeding remains. No further surveys for bats are required but roosting features for bats should be incorporated as an enhancement when designing the proposed conversion of the barn

5.5 Birds

The trees and scrub on site are highly likely to be utilised by nesting birds and it is possible ground-nesting species also use the grassland. A passing dog-walker confirmed that his dog has flushed barn owls from the building in the past. The walls are low (the ledges are under 2m from the ground) and so this in combination with disturbance from dogs may discourage barn owls nesting. There is an opportunity to create a more secure nesting site for barn owls in the new development and given the birds' presence on the site already it is highly likely it would be adopted and used. A nesting site for barn owls in the form of a wildlife tower or as an integrated nesting feature in the barn could be provided.

5.6 Great crested newt

The pond was deemed suitable for great crested newt but an environmental DNA survey undertaken in 24th April 2019 (see separate report) confirmed that the species is absent and not a constraint to development. There are no other ponds within 500m of the site. No further survey for great crested newt is required.

5.7 Reptiles

Common reptiles such as grass snake are confirmed to be present on the site. The proposed development will retain the vast majority of the habitat and it is not necessary to conduct further surveys for the species. Any vegetation clearance for the footprint of the proposed development should follow a precautionary method statement to minimise the chances of harm to reptiles.

5.8 Other protected species

No other protected species (such as hazel dormouse, water vole, otter and white-clawed crayfish) are likely to be present on the site due to lack of suitable habitat and these species can also be scoped out.

5.9 Evaluation and Impacts

The habitat value cannot be determined until the botanical survey of the grassland has been completed.

The species value (appendix 7) of the site is likely to be of at least parish or neighbourhood value due to the presence of species of principal importance such as common toad and grass snake.

6 Recommendations for further survey

Further surveys have been recommended in advance of any future planning application.

Ecological feature	Next steps	Timescales
Grassland	National Vegetation Classification survey	Completed in May 2019. See separate report
Bats	Ground level assessment of trees that are proposed for removal as part of works	Any time of year
Birds	Nesting bird checks if vegetation is to be removed during the breeding bird season.	March to August
Great Crested Newt	Environmental DNA survey of the pond to assess presence/likely absence	Completed in April 2019.
Reptiles	Method statement for any vegetation clearance required as part of construction	To be completed and implemented prior to construction.

6.1 Enhancements

A number of enhancements for biodiversity are suggested below;

- In the first instance, existing broadleaved trees should be retained wherever possible. If new planting is required then species of local provenance and of some benefit to wildlife such as hawthorn, blackthorn (*Prunus spinosa*), hazel, field maple and spindle (*Euonymus europaea*) should be used in the landscape plan.
- Integrated bat roosting features such as bat tubes should be incorporated into the design of the new barn, the tubes should be erected on the south/southwest elevations, so that they receive adequate sunlight but are sheltered from strong winds.
- A nesting site for barn owl should be created either in a wildlife tower or integrated into the converted barn.
- Habitat piles for amphibians and reptiles should be created on the site. Grass clipping piles are of particular benefit to grass snakes.

7 Relevant Legislation and Policy

7.1 European Protected Sites

Habitats of European-wide importance (other than for birds) are listed under Annex I of the Council Directive 92/43/EEC (1992) on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) (Ref. 8.5).

Habitats designated under this Directive are Special Areas of Conservation (SAC's).

Habitats of European-wide importance for birds are listed under the EC Wild Birds Directive (1982) (Ref.8.6). Habitats designated under this Directive are Special Protection Areas (SPA's).

7.2 Natural Environment & Rural Communities Act 2006

Section 40 of the NERC Act, 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. These are all the habitats and species in England that have been identified as requiring action in the UK. These species and habitats are a material consideration in the planning process.

7.3 National Planning Policy Framework

The National Planning Policy Framework (NPPF) was updated in February 2019 thereby replacing the older version of July 2018. The new framework sets out in section 15 that to protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

The following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

7.4 Local Planning Policy

The following relevant parts of policy is taken from the Cherwell Local Plan 2011-2031.

Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment

Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

- In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
- The protection of trees will be encouraged, with an aim to increase the number of trees in the District
- The reuse of soils will be sought
- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensation then development will not be permitted.
- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity...
- Development proposals will be expected to incorporate features to encourage biodiversity and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity...
- Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value.
- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the principal aims will be viewed favourably.
- A monitoring and management plan will be required for biodiversity features on site to ensure their long term suitable management.

7.5 Protected Species

7.5.1 Birds

Wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to take or harm them, their nests (whilst in use or being built) or their eggs.

Additionally, for some species such as barn owl, it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young (schedule 1 species).

7.5.2 Bats

Bats and their roost sites are protected by UK and European legislation.

The Wildlife and Countryside Act 1981 makes it an offence to:

- Intentionally kill, injure or take a bat;
- Possess or control any live or dead specimen or anything derived from a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat; and
- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

Additionally, the Conservation of Habitats and Species Regulations 2010 make it an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat;
- Damage or destroy a breeding site or a resting place of a bat; and
- Keep, transport, sell or exchange or offer for sale or exchange alive or dead bat or any part of a bat.

7.5.3 Reptiles

Slow-worm, adder, grass snake and common lizard are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to kill or injure them.

It is not illegal to capture, disturb or to damage their habitats. However, the reptiles themselves are protected so any works to damage their habitat could risk causing harm to reptiles and hence could be illegal.

In addition, smooth snake and sand lizard receive additional legal protection making it an offence to disturb them or to cause damage to their habitat.

8 References

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Appendix 1 – Photographs



Photo 1: View of the northern elevation of the barn



Photo 2: View of mature ash trees in the eastern field boundary



Photo 3: The southern elevation of the barn



Photo 4: View across site looking east



Photo 5: Barn owl pellet and small mammal bones on floor of barn

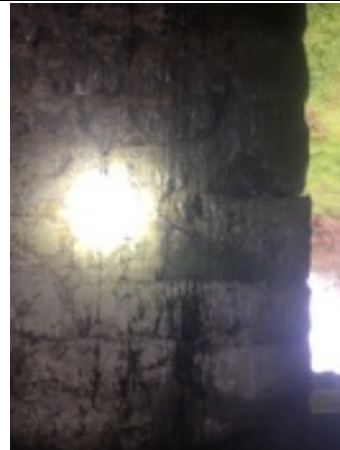


Photo 6: Evidence of barn owl droppings and a roosting site inside the barn



Photo 7: Dense plantation of young ash trees



Photo 8: Blackthorn scrub in plantation



Photo 9: Mature trees including oaks on southern boundary of plantation area



Photo 10: Outflow ditch from the pond in the plantation woodland



Photo 11: Part of the pond



Photo 12: The eastern field boundary



Photo 13: View across grassland looking west

Appendix 2 – Site Plan

Next page.



Legend

- Broadleaved semi-natural woodland
- Broadleaved plantation woodland
- Dense/continuous scrub
- Scattered broadleaved trees
- SI Semi-improved neutral grassland
- Standing water
- Running water
- Defunct hedge
- Fence
- Wall
- Ditch
- Building
- Access track
- Target note
- Site boundary

Project: Oxpens, Wigginton

Client: Seymour-Smith Architects

Drawing Title: Preliminary Ecological Appraisal



SCALE (@A3): 1:2323 Drawn by EB Date: 16 August 2019

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Appendix 3 – Target Notes

Target Note	Description
1	A pond in the woodland suitable for breeding amphibians
2	Signs of barn owl located in the barn
3	A stream running through the grassland

Appendix 4 – Species List

Common Name	Latin
Field maple	<i>Acer campestre</i>
Lords-and-Ladies	<i>Arum maculatum</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
A bitter-cress	<i>Cardamine sp.</i>
Cuckooflower	<i>Cardamine pratensis</i>
Hemlock	<i>Conium maculatum</i>
Hazel	<i>Corylus avellana</i>
Midland Hawthorn	<i>Crataegus laevigata</i>
Cock's-foot	<i>Dactylis glomerata</i>
Tufted hair-grass	<i>Deschampsia cespitosa</i>
Foxglove	<i>Digitalis purpurea</i>
Willowherb sp.	<i>Epilobium sp.</i>
Red fescue	<i>Festuca rubra</i>
Lesser celandine	<i>Ficaria verna</i>
Meadowsweet	<i>Filipendia ulmaria</i>
Ash	<i>Fraxinus excelsior</i>
Cleavers	<i>Galium aparine</i>
Herb robert	<i>Geranium robertianum</i>
Wood avens	<i>Geum urbanum</i>
Ivy	<i>Hedera helix</i>
Common hogweed	<i>Heracleum sphondylium</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Holly	<i>Ilex aquifolium</i>
Yellow iris	<i>Iris pseudacorus</i>
Soft rush	<i>Juncus effusus</i>
White dead-nettle	<i>Lamium album</i>
Water mint	<i>Mentha aquatica</i>
Dog's mercury	<i>Mercurialis perennis</i>
Scots pine	<i>Pinus sylvestris</i>
Smooth meadow-grass	<i>Poa pratensis agg.</i>
Silverweed	<i>Potentilla anserina</i>

Creeping cinquefoil	<i>Potentilla reptans</i>
Blackthorn	<i>Prunus spinosa</i>
A cherry	<i>Prunus sp.</i>
Pedunculate oak	<i>Quercus robur</i>
Goldilocks buttercup	<i>Ranunculus auricomus</i>
Creeping buttercup	<i>Ranunculus repens</i>
A rose	<i>Rosa sp.</i>
Bramble	<i>Rubus fruticosus</i> agg.
Sorrel	<i>Rumex acetosa</i>
A Willow	<i>Salix sp.</i>
Elder	<i>Sambucus nigra</i>
Dandelion	<i>Taraxacum officinale</i> agg.
Bulrush	<i>Typha latifolia</i>
Common nettle	<i>Urtica dioica</i>

Appendix 5 – Definitions of the level of Habitat Value

Geographic level of Value	Examples
International value	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species.
National value	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.
Regional value	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas.
District / Borough	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough.
Parish / Neighbourhood	Undesignated Sites or features which appreciably enrich the habitat resource within the Parish or Neighbourhood.
Negligible value	Low grade and widespread habitats.

Appendix 6 – Definitions of the level of Species Value

Geographic level of Value	Examples
International	<p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> <p>A regularly occurring, nationally significant population/number of any internationally important species.</p>
National	<p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population/number of any nationally important species.</p>
Regional	<p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species.</p>
County/ Metropolitan	<p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species.</p>
District / Borough	<p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p>
Parish / Neighbourhood	<p>Species that are not threatened but are valued at a local level on intrinsic appeal.</p>
Negligible	<p>Common or widespread species.</p>

Appendix 7 – Proposed Enhancements

Products	Description
 <p>The image shows three reddish-brown bat boxes. One is mounted on a brick wall, another is shown from the front with a bat silhouette, and the third is shown from the back, revealing its internal structure.</p>	<p>Integrated bat boxes</p> <p>A bat tube designed to be fitted discretely on the external walls of a building.</p> <p>Available from nhbs.com</p>
  <p>The top image shows a close-up of a wildlife tower integrated into a stone roof, featuring a small entrance hole and a wooden landing platform. The bottom image shows a full view of a stone wildlife tower with a gabled roof, situated in a grassy field.</p>	<p>Wildlife Tower / Integrated barn owl roost</p> <p>A wildlife tower is a purpose- built structure designed to provide roosting and nesting opportunities for barn owls and bats. Bespoke barn owl roosts can also be integrated into barns that are to be converted. More information on appropriate designs and required dimensions can be found at;</p> <p>https://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes-building-projects/</p>



Habitat piles for amphibians and reptiles

Refuges for amphibians and reptiles are easy and inexpensive to create from brush and logs. Grass snakes can also benefit from grass clipping heaps as the warmth generated by decomposition incubates their eggs.