

Preliminary Ecological Appraisal

Site Location	Manor Farm, Holywell, Shrewley, Warwickshire, CV35 7BH
Document reference	CE4479
Date of Site visit	7 th March 2024
Biological Data Search	Warwickshire Biological Records centre Ref: CE9343 22 nd March 2024
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Validity of data

The findings of this study are valid for a period of 24 months from the date of survey. If works have not commenced by this date, it may be necessary to undertake an updated survey to allow any changes in the status of bats on site to be assessed, and to inform a review of the conclusions and recommendations made.

Executive Summary

Chase Ecology was instructed by the client to undertake a Preliminary Ecological Appraisal (PEA) at the named site. The aim of the appraisal was to consider the value and suitability of the site and surrounding areas.

Site Location	Manor Farm, Holywell, Shrewley, Warwickshire, CV35 7BH
Survey Methodology	A site visit was carried out on the 7 th March 2024 following standard Phase 1 habitat survey methodology. The habitats on site were assessed for their suitability to support any legally protected or notable species that may present constraints to the proposed development. This also included invasive non-native plant species. Any
	incidental sightings of individual species or field signs such as footprints, latrines or feeding remains identified during the survey would be noted.
	A 2km biological data search was carried out by Warwickshire Biological Records Centre to determine any impacts to surrounding sites & species during the proposed development works.
Conclusion and	See section 6.0
recommendations	The site has demonstrated suitable enclosed and surrounding habitats of value to protected species and adequate connectivity into the wider habitats of greater importance.
	Evidence from protected species to include both nesting birds and bats was observed within Building one which would suffer impacts during the proposed development works.
	It is therefore recommended that a suitable level of further phase-2 surveys would be conducted to establish all mitigation and protection measures.
Requirements for	See section 6.0
Additional Survey	Amphibians Given the likely impacts from the proposed new driveway/parking to the rear of B2 and likely impacts during development of B1, it is recommended that an eDNA survey be conducted within the water features contained within the site and directly bordering the site. The water features have demonstrated both below average & Poor HSI scores. However, given the surrounding habitats and connectivity

from the wider environments its likely the features may offer opportunities for commuting.

It is recommended that this survey be carried out during the optimal time of mid-April to late June whilst maintaining best practice survey guidelines.

The data from the survey will support any required mitigation and protection measures.

Bats

Building one – Confirmed activity from bats In line with best practice survey guidelines, a further three emergence surveys will be required to confirm activity from bats along with species, volume, and roost type. These surveys should be carried out within the recommended survey season from May to September with at least two of the surveys during the optimal season of May to August.

Where bats are recorded to be using features of the structure where disturbance would be caused a Protected Species mitigation licence would be required prior to development along with suitable mitigation, enhancement and protection methods.

Building two, three & four - No assessment conducted

<u>Birds</u>

Consideration must be given for nesting birds between March & September as evidence from historical nesting activity was observed within building one.

This should be carried out by a suitably experienced ecologist prior to any disturbance during this time and where appropriate, a suitable level of protection and avoidance must be agreed is activity was noted as mitigation cannot be carried out during this time.

Predicted Impacts of Development on surrounding areas Further assessment required to determine all impacts to protected species/sites during all stages of the proposed development works.

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1.0 Introduction

Brief

1.1 This report is produced to present an initial assessment of the potential ecological constraints and opportunities relating to the names site. The report has been prepared to advise the client of potential ecological constraints and opportunities, in preparing an application for planning permission. The report provides a sufficient baseline for the Site, and is suitable in its current form for submission to planning.

2.0 Legislation

This is not an exhaustive list but sets out briefly the relevance of Legislation, Policy and Guidance in terms of planning applications and this assessment.

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). Provides framework at an international (EU) level for the consideration / protection of European Protected Species (EPS), and habitats through the designation of sites.

Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive) and The Ramsar Convention on Wetlands of International Importance (1971) Provides framework at an international (EU) level for the consideration / protection of important bird populations and the sites on which they are dependant.

The Conservation of Habitats and Species Regulations (2017) This transposes 1) into UK law and provides the basis on which all EPS are protected and impacts on them can be licensed in the UK.

The Wildlife and Countryside Act (1981) as amended This provides the basis on which UK species are legally protected or restricted and confers protection on Sites of Special Scientific Interest SSSIs. It contains annexes of plants and animals which are legally protected as well as those which are considered to be invasive or harmful. It provides the basis on which impacts on such species can be licensed in the UK and provides controls on work on or near SSSIs.

The Countryside and Rights of Way Act 2000 (CRoW) Provides a statutory basis for nature conservation, strengthens the protection of SSSIs and UK protected species and requires the consideration of habitats and species listed on the UK and Local Biodiversity Action Plans (UKBAP / LBAP).

Natural Environment and Rural Communities Act 2006 (NERC) Sets out the responsibilities of Local Authorities in conserving biodiversity. Section 41 of the Act requires the publishing of lists of habitats and species which are "of principal importance for the purpose of conserving biodiversity". At present these largely reflect those making up the UKBAP lists. Hedgerows Regulations (1997) Define and provide protection for Important Hedgerows.

Protection of Badgers Act (1992) Protects badgers from persecution, this includes excavation / development in the proximity of setts.

Protected Sites Statutory EU / International Protected Sites
Special Areas of Conservation (SACs); and Special Protection Areas (SPAs)
and Ramsar Sites contain examples of some of the most important natural
ecosystems in Europe. Work on or near these sites is strictly protected and Local
Authorities will be expected to carry out 'Appropriate Assessment' of

development in proximity of them. In this case there is often an increased burden on the developer in relation to provision of information and assessment.

Statutory UK Protected Sites

Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs) all receive strict protection under UK legislation. Work in or in proximity to these sites would be restricted with any needing to be agreed with Natural England. Natural England now provide guidance on the nature of development which could impact on SSSIs through Impact Risk Zones.

Locally Protected Sites

Local Authorities have a variety of protected wildlife sites designated at a local or regional level. These are gradually being brought under the banner of Local Wildlife Sites (LWS) but at present a plethora of different designations exist – all subject to local policy.

Protected Species

European Protected Species

A number of species (most relevantly bats, great crested newts [GCN], and otters) receive strict protection from killing, injury and disturbance under The Conservation of Habitats and Species Regulations (2010). Protection is also conferred on the habitats on which they rely such as roost space in the case of bats and ponds and fields etc. in the case of GCN.

UK Protected Species

A number of species (including bats, GCN, watervole and white clawed crayfish) are strictly protected under The Wildlife and Countryside Act (1981) as amended, from killing, injury, disturbance and damage or destruction of their resting places etc. Certain species (such as reptiles) and some birds (such as barn owl) receive partial protection e.g. at certain times of the year or form certain activities only. All nesting bird species are protected from damage or destruction of their nests – whilst active.

Invasive species

Schedule 9 of the Wildlife and Countryside Act (1981) as amended, lists these species and makes it an offence to cause or allow their spread in the wild. This often has impacts on development and planning in relation to the presence of invasive plant species such as: apanese balsam (Impatiens glandulifera), apanese knotweed (Fallopia japonica) and giant hogweed (Heracleum mantegazzianum).

Planning Policy / Guidance

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework was published in 27 March 2012 (Updated 2021) replacing the majority of previous Planning Policy Guidance

notes (PPGs) and Planning Policy Statements (PPSs). The most relevant paragraphs from the NPPF are set out below.

The general approach to assessing the natural environment is now embedded within the definition of what 'sustainable development' is. The policy states that sustainable development should "contribute to protecting and enhancing our natural environment" and "help to improve biodiversity". There is also a need for positive inclusion of the natural environment in development design and "moving from a net loss of bio-diversity to achieving net gains for nature". The document sets out the Frameworks presumption in favour of sustainable development.

The natural environment is stated within the NPPF core principles: development should "recognise the intrinsic character and beauty of the countryside" and contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should, "prefer land of lesser environmental value, where consistent with other policies in this Framework".

NPPF details the approach to the natural environment. The Framework states that development should "minimise impacts on biodiversity and provide net gains in biodiversity, where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures". The Framework sets out ways to minimise the impacts on biodiversity through "promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets". The NPPF requires the consideration of the impacts of development on the natural environment. The Framework also encourages "opportunities to incorporate biodiversity in and around developments". Importantly this sets out the hierarchy of avoiding, mitigating and compensating harm from development – plans should ensure that they can demonstrate engagement with this hierarchy when required.

Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services. This strategy builds on the Natural Environment White Paper (June 2011) – The Natural Choice: securing the value of nature. Setting out the current UK Government's approach to nature conservation. It promotes a more coherent and inclusive approach to conservation and the valuing in economic and social terms of economic resources.

The strategy promotes initiatives such as Biodiversity Offsetting, Nature Improvement Areas and a focus on well-connected natural networks and introduces the concept of securing a 'no net loss' situation with regard to UKBAP / Section 41 habitats and species.

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation – Statutory Obligations and Their Impact Within the Planning System

Provides guidance to Local Authorities on their obligations to biodiversity – particularly in relation to assessing planning applications and ensuring the adequacy of information.

BSI (2013) British Standards Institute BS 42020:2013 Biodiversity — Code of Practice for Planning and Development.

Provides a standard for the biodiversity assessment and development industries and decision makers such as Local Planning Authorities to work to.

Ancient Monuments and Archaeological Areas Act 1979

No works of any kind affecting the site can be carried out without the prior consent

3.0 METHODOLOGY

3.1 The site visit was undertaken by Mr Garry Smith who is an experienced ecologist with over 9 years' experience of professional ecological surveys.

Great Crested Newt Licence (2015-7216-CLS-CLS) Bat Licence Class 2 (2017-28032-CLSCLS)

Past associations & Practical enhancements • Black Country & Staffordshire Naturalists group 2012 – 2014 • Staffordshire Bat Group 2012 – 2014 • Derbyshire Bat Group 2017 – 2018 • ARG Staffordshire – 2015 – 2016 • ARG Shropshire & Staffordshire 2017 – Current

3.2 The report is also based on a Desk Study of designated wildlife sites and records of protected or notable species, and an extended Phase 1 Habitat Survey carried out on the site, This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). The survey method was "Extended" in that evidence of fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017).

4.0 Results

Desk Study Environmental record search

4.1 A biological data search was undertaken to assess the names species for distribution/record within a 2km study area as detailed below

Species (Common names)		
Badger	Great Crested Newt	
Otter	Water Vole	
Barn Owl	Hedgehog	
Common Pipistrelle Bat	Brown Long-eared Bat	
Soprano Pipistrelle	Noctule	
Myotis	Adder	
Slow Worm	Common Lizard	
Grass Snake		

4.2 Designated sites;

Statutory (5km)

Site	Designation	Distance (km)	Direction
Oak Tree Farm Meadows	SSSI	0.70	W
Shrewley Canal Cutting	SSSI	1.70	NE

Priority Habitat Inventory within 2km

HABITAT	Distance (km)	DIRECTION
Deciduous Woodland	0.15	M
Deciduous Woodland	0.25	SW
Deciduous Woodland	0.70	NW
Deciduous Woodland	0.85	NE
Deciduous Woodland	1.60	SE

None of the above names sites/locations would be effected in any way from the proposed development plan for this site, including both habitats and species.

- **4.3** Aerial photographs of the site were consulted to determine if there are important landscape features surrounding and within vicinity of the site.
- **4.4** A search of previous Granted European Protected Species Applications revealed within 2km;
 - 0.70KM South Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared Bats.
 - 1.40KM West Common Pipistrelle Bats

Field study

- **4.5**A site visit was completed by Garry Smith where the site and surrounding areas were assessed following standard Phase 1 habitat survey methodology. Weather conditions were optimal for such a survey of this kind.
- 4.6 The habitats on site were assessed for their suitability to support any legally protected or notable species that may present constraints to the proposed development. fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2023).

4.7 Preliminary Protected / Notable Species Assessment

Species	Evidence	Habitat
Reptiles	No	No evidence from reptiles observed during a site visit on the 7 th March 2023. The inner site habitats containing hardstanding, buildings, amenities grass & semi-improved grassland in use as horse paddocks look to offer poor habitats for reptiles with minimal opportunities for shelter/feeding. The habitats across the East, South & West do however look to offer a suitable level of shelter with coverage from hedgerows, un managed habitats, waterbodies and adequate connectivity from the wider habitats of greater importance.
Amphibians	No	No evidence from amphibians observed during a site visit on the 7th March 2023. Like reptiles, a large proportion of the site offers poor opportunities for amphibians other than the boundary habitats which look to offer a suitable level of shelter and connectivity into the wider habitats of importance. Aquatic habitat within site - Pond – HSI = Poor (Evidence of waterfowl and limited aquatic flora/shelter. - Drain – HSI = Below Average

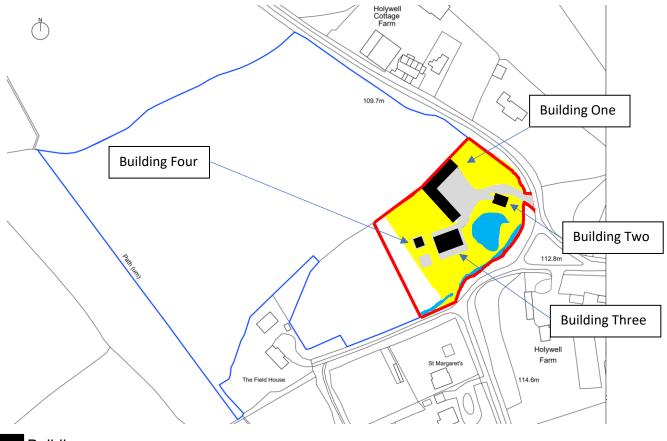
		 Drain – HSI = Below Average Although the two wet drains within the site offer below average for Great Crested Newt, they may offer opportunities for commuting between other sites of greater importance and should be considered for any likely impacts during development. Aquatic habitats beyond the site and within 500 meters; 35 meters – East – Pond 150 meters – South/East – Pond 240 meters – South/East – Pond
Birds	Yes	The site has demonstrated a suitable level of feeding & nesting opportunities for birds throughout the site. Birds observed during a site visit on the 7 th March included Sparrow, Yellow Hammer, Magpie, Blackbird, Rooke. Evidence of previous nesting activity was observed within the open fabricated roof section of B1. The main tiled section of B1 has also demonstrated accessible features of further opportunities for nesting birds with gaps to the main roof coverings and within the timbers externally. B2 which the client has advised will suffer no impacts from the proposed development works has also demonstrated suitable nesting habitats commonly occupied by birds both internally and externally. The hedgerows to the North, East, West habitats of the site also offer suitable nesting and feeding opportunities throughout.
Mammals (Not including bats)	No	No evidence from mammals observed during a site visit on the 7 th March 2023. Data search records have evidenced several recorded sightings of badger within a 2km site radius with the closest record 225m North/West of the proposed development works.

	T	,
		The habitats across the site would offer likely commuting/foraging value for larger species of mammal such as badger with accessible opportunities through hedgerow gaps to the North. East, South & West. The site also offers a suitable level of
		connectivity across to the wider sites of greater importance for protected species.
Bats	Yes	The site is located in a suitable environment to offer roosting, feeding and commuting habitats commonly used by bats.
		B1 – The building was assessed both internally and externally for any evidence from bats or suitable features of value.
		Internally, confirmed evidence from bats was observed across both the ground and 1st floor areas in the form of feeding remains and droppings.
		Externally, the building has demonstrated high value for bats with adequate features of value for roosting/access throughout the tiles roof coverings and vertical surfaces which has included gaps to timbers, frames and eaves.
		Internally, membrane coverings were observed in areas which would provide likely further daytime roosting opportunities for bats along with several accessible gaps between the eaves and areas between brickworks and roof coverings which crevice dwelling species of bats would value.
		B2 – The detached garage which the client has confirmed will suffer no impacts during development has demonstrated moderate value with adequate features across the main roof coverings and eaves areas. The West elevation also offer adequate access internally with habitats of value for both roosting and feeding.
		No evidence from bats was observed within this structure. However, we are unable to rule out any roosting within the enclosed habitats

	of value throughout the roof coverings and eaves areas where evidence such as droppings wouldn't always be visible.
	B3 – The main dwelling was not assessed.
	B4 – Small detached outbuilding was not assessed.

5.0 Plans & Photographs

Image 1 – Habitat plan



Buildings

Hardstanding

Water

Amenities Grass

Semi-improved Grass

Image 2 – View showing site entrance to the North/East via hardstanding driveway



Image 3 – Aquatic habitats to the South of the site entrance



Image 4 – View looking East to West across the North site habitats of amenities grass and hard standings



Image 5 – View looking West to East across the habitats between B1 & Roadside which offers a single pond



Image 6 – Grass habitats between B2 & Pond shown in image five on previous page



Image 7 – Hard standing habitats between B1 & B3



Image 8 – Amenities grass across the South/West areas of B1



Image 9 – Aquatic habitats to the East of the main dwelling B3



Image 10 – View looking South/West to North/East across the South/West habitats of the site (Blue line)



Image 11 – View looking North to South across the East habitats of the site (Blue line)



Image 12 – Habitats new to the West elevation of B1



Image 13 – B1 – Front North areas of the structure



Image 14 – B1 – Example of gaps within the openings within the North areas of the structure which look to offer opportunities for both bats and nesting birds



Image 15 – B1 – Gaps within the timber claddings to the North areas of the structure



Image 16 – B1 – South facing elevation of the structure



Image 17 - B1 - Examples of gaps with the South facing roof coverings of the structure which looks to offer shelter/access opportunities for both bats and nesting birds



Image 18-B1-Examples of gaps within the South external brickworks which looks to provide further opportunities for bats



Image 19 – B1 – Internal view from within the structure



Image 20 – B1 – Internal view from within the structure



Image 21 – B1 – Internal evidence of bat droppings observed within the ground floor areas of the structure confirming activity from bats



Image 22 - B1 - B1 - Internal evidence of bat droppings observed within the ground floor areas of the structure confirming activity from bats



 $\label{eq:loss} \mbox{Image 23-B2-Detached garage which is not disturbed as part of proposed development works}$



 $\label{eq:loss_equation} \mbox{Image 24-B3-Detached dwelling within is not disturbed as part of proposed development works}$



 $\label{eq:loss_equation} \mbox{Image } 25-\mbox{B4}-\mbox{Detached outbuilding within is not disturbed as part of proposed development works}$



6.0 Conclusion and recommendations

All recommendations provided in this section shall be on Chase Ecology current understanding of the site proposals and current planning application, correct at the time the report was compiled. Should any aspect of the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate

6.1 Amphibians

Given the likely impacts from the proposed new driveway/parking to the rear of B2 and likely impacts during development of B1, it is recommended that an eDNA survey be conducted within the water features contained within the site and directly bordering the site. The water features have demonstrated both below average & Poor HSI scores. However, given the surrounding habitats and connectivity from the wider environments its likely the features may offer opportunities for commuting.

It is recommended that this survey be carried out during the optimal time of mid-April to late June whilst maintaining best practice survey guidelines.

The data from the survey will support any required mitigation and protection measures.

6.2 Reptiles

No further survey requirements identified. However, a suitable level of protection measures must be implemented during all stages of development to prevent impacts to the wider habitats of greater importance.

6.3 Bats

Building one – Confirmed activity from bats

In line with best practice survey guidelines, a further three emergence surveys will be required to confirm activity from bats along with species, volume, and roost type. These surveys should be carried out within the recommended survey season from May to September with at least two of the surveys during the optimal season of May to August.

Where bats are recorded to be using features of the structure where disturbance would be caused a Protected Species mitigation licence would be required prior to development along with suitable mitigation, enhancement and protection methods.

Building two, three & four - No assessment conducted

6.4 Birds

Consideration must be given for nesting birds between March & September as evidence from historical nesting activity was observed within building one.

This should be carried out by a suitably experienced ecologist prior to any disturbance during this time and where appropriate, a suitable level of protection and avoidance must be agreed is activity was noted as mitigation cannot be carried out during this time.

6.5 Badger/larger mammals

No further survey requirements identified. However, a suitable level of protection measures must be implemented during all stages of development to prevent impacts to the wider habitats of greater importance.

6.6 Trees

It is advised that a arboricultural survey, impact assessment report for planning consideration is carried out by a suitably qualified person if any of the Native and or Non-native trees are to be removed.

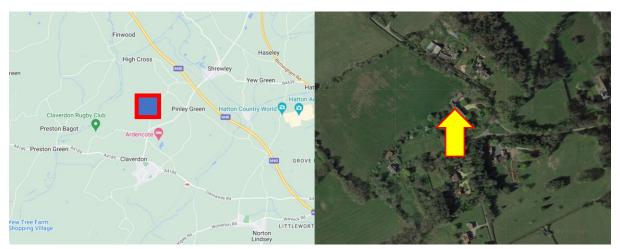
6.7 General Recommendations for Enhancement

In addition to any specific required to compensate for impacts on protected species or habitats, both national and local planning policy encourages ecological enhancement in all development. Based on the existing ecological value of the site and information available about the proposed development, consideration should be given to the use of native species or those with recognised benefit to wildlife in areas of soft landscaping to enhance the value of the site for wildlife.

7.0 References

- Great Crested Newt Mitigation Guidelines. Peterborough: English Nature.
- Joint Nature Conservancy Council, 2010. Handbook for Phase 1 habitat survey. Peterborough: JNCC.
- Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th EditionBritish Trust for Ornithology (2023 updated) www.bto.org/
- Stace, C., 2010. New Flora of the British Isles. 3rd Edition. Cambridge University Press
- CIEEM. (2023). Guidelines for Preliminary Ecological Appraisal. CIEEM
- Magic database
- Google Earth

Appendix 1: Location plan



See Appendix 2: Protection & Enhancement.

This document must be available to all involved in the planned development. All contractors must aware of the potential of protected & priority species being found on site and care should be taken during works to avoid harm (including during any tree works).

If any protected species are identified other than the species documented within this report which form part of the Mitigation at any point within the proposed development the client must stop works and contact a suitably qualified ecologist to assist further where further surveys/licences may be required before works can continue.

Lighting

Further assessment required to determine any impacts to protected species such as bats which may use the site during the hours of darkness and maybe impacted from nay additional external lighting.

Protection of Wildlife During the development stage

All excavations if any should be closed where possible during the hours of darkness to prevent entrapment of wildlife such as mammals which may use the site during the hours of darkness for commuting & foraging.

For excavations which require to be left open a shallow slope should be in place to aid escape.

Any open pipes should be capped off at night to prevent animals entering.

The site should remain is a tidy fashion with waste materials removed daily to prevent any use from wildlife as an au natural refugia.

Nesting Birds

Consideration must be given for nesting birds between March & September as evidence from historical nesting activity was observed within building one.

This should be carried out by a suitably experienced ecologist prior to any disturbance during this time and where appropriate, a suitable level of protection and avoidance must be agreed is activity was noted as mitigation cannot be carried out during this time.

Site setup & clearance

When setting up the site including areas where waste and materials are to be loaded out considerations must be given during October to March to prevent any wildlife using such features for refugia/hibernation.

Enhancement

Based on the existing ecological value of the site and information available about the proposed development, consideration should be given to the use of native species or those with recognised benefit to wildlife in areas of soft landscaping to enhance the value of the site for wildlife.

Hedgehog boxes being incorporated into the grounds would be advised to support national declining populations of such species where records have been noted within the surrounding 2km radius.

Enhancement should be considered within the development with the use of nesting boxes.

Sustainability Consideration should be given to energy efficiency, water sustainability, management of waste during and post construction and the use of recycled materials and sustainable building methods and sustainable transportation.

Appendix 3: List of non-statutory sites

09/16

Flood Plain Meadows

Area of abundant hard rush Juncus inflexus in an otherwise improved field. Damp improved meadow next to a stream, but with lady's-smock Cardamine pratensis present. The stream is ordered by mature alders Alnus glutinosa and ramsons Allium ursinium are abundant at the eastern edge of the field.

Improved field, waterlogged at time of visit and with frequent hard rush and lady's-smock.

Unable to gain access to this meadow, which contains abundant rush species Juncus sp. and buttercup Ranunculus spp. At the edges nettles Urtica dioica are locally dominant and cow parsley Anthriscus sylvestris is locally abundant.

The northern boundary consists of ancient alders, with locally dominant ramsons. Red campion Silene dioica and cow parsley also present.

Marshy meadow, previously grazed by cattle. Abundant hard rush, sharp-flowered rush Juncus acutiflorus, ribwort plantain Plantago lanceolata, daisy Bellis perennis and meadow buttercup Ranunculus acris and frequent pignut Conopodium majus are present, as is occasional lady's-smock and meadowsweet Filipendula ulmaria. Carex species are rare, while spear thistle Cirsium vulgare is locally abundant. Near the fence to the northeast there are cowslips Primula veris and field wood-rush Luzula campestris. The dominant grass is sweet vernal-grass Anthoxanthum odoratum.

No access to this field that appears to be managed as a hay meadow. Foxtail Alopecurus spp, buttercup species, and dandelions Taraxacum agg. are visible, with nettles at the edges.

Breach Farm

The northern fields of this site are identified as a potential Local Wildlife Site (pLWS).

Eight unimproved meadows with a variety of grasses and herbs. HBA data records the site now as mainly improved grassland, with some fields in the north classified as semi-improved neutral grassland.

109/16

Claverdon St Michael

and All Angels Church

The churchyard is considered to be fairly species rich, supporting a range of flora and fauna.

111/26

The Gallop, Manor Lane

Semi-improved permanent pasture which is relatively species rich and an adjacent hedgerow.

114/16

Lowsonford Churchyard

Churchyard supports a range of flora, including dog-rose Rosa canina species, crosswort Cruciata laevipes, various berries, American willow herb Epilobium ciliatum, annual meadow grass Poa annua and others. Church is suitable for bats, although they were not present at time of survey in 1992/93.

(1998)

Shrewley Canal

Pastures (or High

Chimneys Community

Woodlands

Some of the pastures have been planted on, mainly norway spruce Picea abies in 1994, though the eastern quarter of the pasture is still species rich semi-improved grassland.

116/26D

Railway Line, Rowington

& Shrewley area

Parts of the site identified as 'Railway Embankment' pLWS.

Linear features provide important wildlife corridors and the deep railway cutting which extends either side includes areas of semi improved grassland, tall ruderal, scrub and scattered trees. Sycamore

Acer pseudoplatanus is the dominant tree species but there are also occasional oaks Quercus sp. The understorey has abundant broom Cytisus scoparius, frequent hawthorn Crataegus monogyna and occasional rose Rosa sp and bramble Rubus fruticosus.

120/16

Railway at Turners

Green

An active railway that provide an important wildlife corridor. At SP189697 there is a neglected area next to the railway embankment with elder Sambucus nigra and hazel Corylus avellana, and the ground flora is locally dominated by bluebell Hyacinthoides non scripta, dog's mercury Mercurilais perennis and nettle Urtica sp (HBA, May 1997).

Langley Road Meadow

Identified as a potential Local Wildlife Site (pLWS).

Listed in English Nature's Grassland Inventory 1995.

A large field near Claverdon of which the south-eastern half is probably of higher quality. The field is usually cut for hay and then grazed by cattle or horses. Species recorded include sweet vernal grass Anthoxanthum odoratum, crested dog's tail Cynosurus cristatus, red fescue Festuca rubra, yorkshire fog Holcus lanatus, perennial rye grass Lolium perenne, timothy Phleum pratense, rough meadow grass Poa trivialis, yarrow Achillea millefolium, common mouse-ear Cerastium fontanum, pignut Conopodium majus, lady's bedstraw Galium verum, dandelion Taraxacum agg., bird's foot trefoil Lotus sp, narrow leaved plantain Plantago lanceolata, buttercup species Ranunculus sp. and clover Trifolium sp.

127/26

Oak Trees Meadow

Idenified as 'Oak Trees Meadow' pLWS.

Improved grassland with boundary hedgerows.

128/16

Claverdon Meadow

Identified as Breach Farm potential Local Wildlife Site (pLWS).

Listed in English Natures Grassland Inventory 1995.

The field, which is considered relatively diverse, was formerly half of a larger field, although the other part has been fenced off and a pool dug at the north west end. The wide view and large hedges enhance the landscape setting for the site.

Pinley Green Meadow

Identified as 'Pinley Green Meadow' pLWS.

Semi-improved grassland field.

129/16

Field at Hobbs Hole

Lane

Site is identified as a potential Local Wildlife Site (pLWS).

English nature information (1997) suggests field is very high quality site. MG5.

Site includes hedges, ditches and verges as well as a field. Verges

have vetches, cowslips Primula veris, bluebells Hyacinthoides non scripta, wild strawberries Fragaria vesca, town hall clock Adoxa

moschatellina, ox-eye daisy Leucanthemum vulgare, wood millet

Millium effusum, herb bennet Geum urbanum, lady's smock

Cardamine pratensis and hard shield fern Polystichum setiferum.

Hedgerows contain a good range of woody species and there are several mature trees.

132/26

Wheel Barrow Lane

Identified as 'Wheel Barrow Lane' pLWS.

Blackthorn Prunus spinosa hedge with some birch Betula sp, elm
Ulmus sp, hawthorn Crataegus monogyna and hazel Corylus avellana
with lords and ladies Arum maculatum, primrose Primula vulgaris,
hairy bittercress Cardamine hirsuta, hogweed Heracleum
sphondylium, hedge bedstraw Galium album, bluebell Hyacinthoides
non-scripta, cow parsley Anthriscus sylvestris and honeysuckle
Lonicera periclymenum.

Ridge and Furrow

Pasture

Identified as 'Ridge and Furrow Pasture' pLWS.

A neglected semi improved ridge and furrow meadow containing frequent cock's foot Dactylis glomerata, yorkshire fog Holcus lanatus, perennial rye-grass Lolium perenne, crested dog's-tail Cynosurus cristatus, red fescue Festuca rubra, and occasional timothy Phleum pratense and meadow foxtail Alopecurus pratensis. Birds foot trefoil Lotus corniculatus was also noted, as well as occasional red bartsia Odontites vernus, black knapweed Centaurea nigra, greater knapweed Centaurea scabiosa, yarrow Achillea millefolium, ragwort Senecio sp, red clover Trifolium pratense, white clover Trifolium repens and common cat's-ear Hypochaeris radicata.

141/16

Tributary of

Kingswood/Preston

Bagot Brook

Designated Local Wildlife Site (LWS). Part of River Alne Local Wildlife Site (LWS).

An important linear feature which runs through Oak Tree Farm Meadow SSSI. At the SSSI the stream banks are included in the notification.

The stream is an ecosite along its entire length but we have little survey data for most of its length.

LWS

Marshy Field at

Lowsonford

Consists of semi-improved grassland with wet areas and relatively species rich marsh grassland. The northern part of the field appears to be species-poor, with few broad-leaved herbs. The southern part of the field is species-rich marshy grassland with a good range of grasses, rushes and sedges together with many broad-leaved species, including ragged robin Lychnis flos-cuculi, greater burnet Sanguisorba officinalis, marsh marigold Caltha palustris and greater bird's-foot trefoil Lotus pedunculatus.

This type of marshy grassland is increasingly rare and is decreasing in abundance both at county and at national level.

The presence of two adjacent linear ecosites increases the ecological value of this field considerably by linking it to other areas of semi natural habitat.

150/26

Ridge and Furrow

Pasture

This is a fishing pool, which has existed as a lake for some time and is surrounded by mature trees and scrub. It was a small farm pond that has now been extended for use as fishing pool. The pool is heavily fished.

Mixed plantation to western area of site

151/26

Kingswood Brook

Designated Local Wildlife Site (LWS). Part of River Alne Local Wildlife Site (LWS).

A site that was formerly dredged and the associated vegetation

cleared. The site has now recovered to its former state; the east of the site now contains a large new plantation and brooklime Veronica beccabunga dominates where the footpath crosses the stream. Information has been retrieved from the wildlife sites register, although the plantation has been established at some time since the last survey on 29/5/93.

I WS

152/16

Hobbs Hole Lane

Site was identified as a potential Local Wildlife Site (pLWS).

The site comprises hedges, ditches and verges on variable slopes either side of a narrow lane. To the north the verges are fairly level and about 2m wide with several vetches Vicia sp., cowslip Primula veris and bluebell Hyacinthoides non-scripta. The middle section has narrow steeply-banked verges, damper with a diverse flora including wild strawberry Fragaria vesca, town hall clock Adoxa moschatellina, oxeye daisy Leucanthemum vulgare, wood millet Milium effusum and herb bennet Geum urbanum. At the southern end the verges are level and wide with deep shaded ditches; these damper banks have lady's smock Cardamine pratensis and hard shield fern Polystichum aculeatum. Hedgerows border the lane on either side, they contain a good range of woody species and there are several mature trees. Site surveyed on 29/05/1993.

157/16

Field

Identified as a potential Local Wildlife Site (pLWS).

Meadow with abundant black medick Medicago lupulina over old ridge and furrow. Bulbous buttercup Ranunculus bulbosus and meadow

buttercup Ranunculus acris are also abundant, with frequent daisy
Bellis perennis, red clover Trifolium pratense and cow parsley
Anthriscus sylvestris. Grasses include yorkshire fog Holcus lanatus,
sweet vernal-grass Anthoxanthum odoratum and meadow foxtail
Alopecurus pratensis. Soft rush Juncus effusus is present in the ditch
at the northern edge, along with pendulous sedge Carex pendula.
Field forget-me-not Myosotis arvensis is also frequent here.

158/16

Green Lane

Identified as a potential Local Wildlife Site (pLWS).

Long damp green lane, usually banked on both sides and with hedges that are derelict for most of its length. The hedges contain hazel Corylus avellana, elm Ulmus sp, common hawthorn Crataegus monogyna, midlands hawthorn Crataegus laevigata, elder Sambusu nigra, field maple Acer campestre and holly llex aquifolium, with occasional oak Quercus robur standards. Ivy covers some of the trees and shrub and some patches of ground. The ground flora is locally dominated by cow parsley Anthriscus sylvestris, with bluebell Hyacinthoides non-scripta and cleavers Galium aparine locally frequent. Other species present include garlic mustard Alliaria petiolata, wood avens Geum urbanum, dog's mercury Mercurialis perennis and lords and ladies Arum maculatum.

159/16

Potatoe Lane Meadow

and The Woodlands

Designated a Local Wildlife Site (LWS).

Part of this large garden is kept as a wildflower meadow. Species present include cowslip Primula veris, crosswort Cruciata laevipes,

primrose Primula vulgaris, lady's-smock Cardamine pratensis, hogweed Heracleum sp., goldilocks buttercup Ranunculus auricomus, cow parsley Anthriscus sylvestris, black knapweed Centaurea nigra, creeping cinquefoil Potentilla reptans and Vicia sp Fritillaries Fritillaria meleagris are reported. A dense blackthorn Prunus spinosa hedge is present on three sides with rare bluebells Hyacinthoides non-scripta underneath. Muntjac, toad and grass snake are reported on the far side of the hedge. Great crested and smooth newts are also reported in the garden pond.

Meadow reportedly mown once a year for hay. Sweet vernal-grass Anthoxanthum odoratum dominates, with meadow foxtail Alopecurus pratensis also present. Forbs include abundant black knapweed and meadow buttercup, frequent tufted vetch and ribwort plantain Plantago lanceolata and occasional pignut Conopodium majus, hogweed and common sorrel. Crosswort is locally frequent in the north west of the field and lady's-smock is locally common in the southwest. Cowslips are rare. Bluebells are present under the hedges, which are of blackthorn. These hedges are good for birds and a hare was seen. Small, ungrazed meadow which appears to be unmanaged. It is dominated by yorkshire fog Holcus lanatus. Meadow foxtail Alopecurus pratensis is also present and there is frequent hogweed, nettles and cleavers. There are occasional white dead nettle, tufted vetch, dock, meadow buttercup and black knapweed. Nearer the edges there is cow parsley, garlic mustard and ground ivy. There is a small stand of common hawthorn in the centre of the field and some bramble encroachment.

LWS

24/16Z

Disused Railway -

Rowington Junction to

Henley-in-Arden

The majority of the linear site has ungraded nature conservation status.

A large section of 24/16 in tetrad T is identified as a potential Local Wildlife Site (pLWS).

Good habitat for nesting birds, small mammals and invertebrates.

Consists largely of areas of mixed deciduous trees.

30/26D

Grand Union Canal

(Hatton Locks)

Identified as 'Grand Union Canal' pLWS.

The canal is an important linear wildlife corridor. Parts have tall herbs, with srub of hawthorn Crataegus monogyna and blackthorn Prunus spinosa and bordering areas of trees and hedges.

The canal, although heavily used for recreation, is still of significant nature conservation value. Evidence of otter Lutra lutra was recorded in 2016 and the lock walls have a least five species of fern. In the past certain areas supported population of water vole Arvicola amphibius.

The site also includes associated grasslands between the canal and railway and although historically much more grassland was present, only fragments remain.

30/26E

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33/16

Yarningale Common

Designated a Local Wildlife Site (LWS).

The common comprises a mosaic of broad-leaved semi-natural woodland, scrub, tall herb, patches of semi-improved neutral and acid grassland and several ponds.

It supports a very good variety of flora including a number of notable species for Warwickshire. Remnants of acid grassland from the site's heathland origin include tormentil Potentilla erecta, slender St John's wort Hypericum pulchrum, heath bedstraw Galium saxatile and heath wood-rush Luzula multiflora. The main pond supports great crested newts.

An invertebrate survey has recorded nationally scarce and regionally scarce species.

Although still supporting a good range of birds, many of the more notable species have been lost and an indication of the sites former value for species typical of heathland and common can be found through looking at the LWS citation.

N.B. Site is illustrated on the map as a potential Local Wildlife Site but

it has been designated a Local Wildlife Site (LWS) in 2014 and will be updated in the LWS GIS layer in the next update.

LWS

36/16

Holywell Meadow

Part of this site is a designated Local Wildlife Site (LWS).

Sloping permanent pasture meadows on ridge and furrow. Site of rich flora, characteristic of unimproved and semi-improved neutral grassland. Species include common spotted orchid Dactylorhiza fuschii and meadow saxifrage Saxifraga granulata.

Denotified as a SSSI in 1986, as it had been improved. However, the WWT survey of 1993 indicates that the site has become more interesting and is herb rich with some wet areas of marshy grassland adding to the site's diversity. Includes two lanes near Holywell and adjacent meadows.

Part LWS

38/26

Colley Irons Plantation

Small area of mixed woodland, with an adjacent hedgerow of holly llex aquifolium, hazel Corylus avellana, ash Fraxinus excelsior, oak Quercus sp and hawthorn Crataegus monogyna. The plantation contains cedar Thuja plicata, sycamore Acer pseudoplatanus and beech Fagus sylvatica, with a small area of ash and hazel coppice with abundant bluebell Hyacinthoides non-scripta.

45/16

Tapster Brook &

Tributaries

Designated as 'River Alne' Local Wildlife Site (LWS)

Lowland river of good ecological quality. The channel supports a variety of bankside, submerged, floating and emergent flora, including arrowhead Sagittaria sagittifolia, purple loosestrife Lythrum salicaria, common reed Phragmites australis, yellow water lily Nuphar lutea, branched bur-reed Sparganium erectum and water crowfoot Runnunculus sp. The river is known to support otter Lutra lutra. From LWS citation.

LWS

47/16S

Stratford on Avon Canal

Identified as a pLWS.

Important linear habitat feature. Although heavily used there is a species rich aquatic and marginal flora including branched bur-reed Sparganium erectum and various rushes. The brick features at locks support a variety of ferns.

47/16Y

Stratford on Avon Canal

Identified as a potential Local Wildlife Site (pLWS).

Important linear habitat feature. Although heavily used there is a species rich aquatic and marginal flora including branched bur-reed Sparganium erectum and various rushes. The brick features at locks support a variety of ferns.

47/16Z

Stratford on Avon Canal

Identified as 'Stratford on Avon Canal' pLWS.

Important linear habitat feature. Although heavily used there is a species rich aquatic and marginal flora including branched bur-reed

Sparganium erectum and various rushes. The brick features at locks support a variety of ferns.

49/16

Kingswood / Preston

Bagot Brook

Designated as 'River Alne' Local Wildlife Site (LWS).

Site includes stream, its tributaries and osier Salix viminalis beds. The stream is in a good natural state and has adjacent marshy areas with LWS associated species.

74/16

Cordison fields S side of

Kingswood brook

Identified as a potential Local Wildlife Site (pLWS).

Small, dry semi-improved grassland which is now infrequently grazed.

Contains abundant common bent Agrostis capillaris, red fescue Festuca rubra and crested dog's-tail Cynosurus cristatus with black bent Agrostis gigantea and cock's-foot Dactylis glomerata. Lesser knapweed, lesser celandine, meadow and creeping buttercup, and sorrel are locally frequent with ribwort plantain, pignut, good friday grass Luzula campestris and very occasional ladies mantle. Dog's mercury, fool's watercress and brooklime occur along the boundary stream.

Heavily grazed pasture which retains considerable species richness including crested dog's tail, sweet vernal grass Anthoxanthum odoratum, perennial rye-grass Lolium perenne and a variety of other grasses with sorrel, ribwort plantain, lesser knapweed, creeping and meadow buttercup, hairy sedge Carex hirta, good friday grass, cat's ear, self-heal, bird's-foot trefoil and bugle. The land is lower and wetter

to the north with additional species such as hard rush Juncus inflexus and common sedge Carex nigra and is also severely affected by cattle grazing.

Particularly interesting flood meadow which contains very frequent greater burnet, meadowsweet, creeping buttercup, jointed rush Juncus articulatus, creeping bent Agrostis stolonifera, yorkshire fog Holcus lanatus and lesser knapweed. Common sedge and other sedges also occur frequently with marsh marigold, bugle, marsh thistle and cat's ear. Much of the area is bounded by a brook which is lined with alder. Ramsons dominates although species such as cowslip, townhall clock, dog's mercury and sweet violet also occur.

Rush dominated marshy grassland. Containing abundant jointed rush with frequent hard rush, purple moor grass Molinia caerulea, yorkshire fog, cock's-foot, smooth meadow-grass Poa pratensis, meadow foxtail Alopecurus pratensis, cowslip, meadowsweet, and sorrel. Wild angelica, lesser celandine, meadow vetchling, self-heal, ladies smock, lesser knapweed, great burnet, lesser stitchwort, good friday grass, marsh thistle, pignut, marsh marigold and ladies mantle. Lesser pond

Semi-improved grassland, cut and grazed rush pasture containing abundant jointed rush, ribwort plantain, cat's ear, ladies mantle, great burnet, self-heal, lesser celandine and good friday grass on the lower ground. On the higher ground the grassland is not grazed with tall fescue Festuca arundinacea, red fescue, gemander speedwell, lesser knapweed and meadow buttercup. Small areas of unfenced alder woodland occur in the west.

sedge Carex acutiformis and ground ivy occur near the stream with

87/16

Yarningale Coppice

butterbur occurring in places.

Ancient replanted woodland, which is now mainly Norway spruce Picea abies. Some broadleaved trees can be found on the edges.

90/26

Wheel Barrow Lane

Poor semi-improved grassland with frequent meadow buttercup
Ranunculus acris, dove's-foot crane's-bill Geranium molle, woolly
thistle Cirsium eriophorum, cleavers Galium aparine and cock's-foot
Dactylis glomerata.

Wheelbarrow Lane contains an interesting set of hedgerows of elder Sambucus nigra, hawthorn Crataegus monogyna, dog rose Rosa canina, blackthorn Prunus spinosa, bramble Rubus fruticosus, holly llex aquifolium and ash Fraxinus excelsior, with ivy Hedera helix, cow parsley Anthriscus sylvestris, lords and ladies Arum maculatum, hedge bedstraw Galium album, white dead-nettle Lamium album, wood avens Geum urbanum, lesser celandine Ficaria verna, red dead nettle Lamium purpureum, honeysuckle Lonicera periclymenum, dog violet Viola sp, bluebell Hyacinthoides non-scripta and hogweed

Heracleum sphondylium in the ground layer. There is also a band of plantation woodland.

90/26

Pinley Green Sand Park

Identified as 'Pinley Green Sand Park' (pLWS).

Listed on English Natures Grassland Inventory 1995.

This sand pit is surrounded by acid semi-improved grassland with extensive sand cliffs which is a good habitat for insects, butterflies and birds. High botanical interest. Species include common spotted orchid Dactylorhiza fuchsii, great burnet Sanguisorba officinalis, common Knapweed Centaurea nigra and adder's tongue Ophioglossum vulgatum.

Pinley AbbeyPool &

Springs

Site selected as 'Pinley Abbey Pool and Springs' pLWS.

Pinley Abbey Coppice contains mature oak Quercus s. and beech Fagus sylvatica standards and an understorey of willow Salix sp., ash Fraxinus exclesior and hazel Corylus avellana with remnant coppice. The ground flora includes red campion Silene dioica and bluebell

Hyacinthoides non-scripta.

Hardman Wood is predominately Scots pine Pinus sylvestris, beech, wild cherry Prunus avium and ash standards with some wayfaring Viburnum lanatana and wild service Sorbus torminalis trees.

Abbey Meadow is a summer wild flower meadow and cut for hay. The species present include ox-eye daisy Leucanthemum vulgare, yellow rattle Rhinathus minor, ragged robin Lychnis flos-cuculi and cowslip Primula veris.

Other areas include Hardman Pool, Manor Wood, Mound Wood, Clay Park Meadow and a range of ponds and hedgerows.

Anecdotal records exist for the site of great crested newt Triturus cristatus, smooth newt Lissotriton vulgaris, slow worm Anguis fragilis and grass snake Natrix helvetica.

96/16

Meadow Croft

Three formerly unimproved meadows that have been improved and possibly ploughed. The surrounding hedges have hawthorn Crataegus monogyna, oak Quercus sp, and crabapple Malus sylvestris, with bluebell i non-scripta in the ground flora (1998).

99/16

Potatoes Lane nr.

Lowsonford

Identified as a potential Local Wildlife Site (pLWS).

A green lane from Henley road northwards over a filled in railway cutting before the habitat improves greatly where the green lane narrows and the canopy closes over the footpath. The path passes a plantation of pine with some ash Fraxinus excelsior and a ground flora dominated by bluebells Hyacinthoides non-scripta.

(1998)