PRELIMINARY ECOLOGICAL APPRAISAL

at

Land adjacent to 87 Grange Lane
Cundy Cross
Barnsley
South Yorkshire
S71 5QF

Client:
AMCM Developments Ltd

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Date of Report:
11/07/24



JCA Limited
Arboricultural & Ecological Consultants

Quality Assurance

Version	**Desktop Survey Completed:**		**Site Surveyed:**		**Report Completed:**		**Reviewed:**	
	Date	Name	Date	Name	Date	Name	Date	Name
Planning	11/07/24	Adam West	03/07/24	Adam West	11/07/24	Adam West	11/07/24	James Foster

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM's Code of Professional Conduct.*

Risk Assessment Completed	
Bio-security Procedure Completed	
Lone Worker Procedure Completed	

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Summary

JCA Limited has been commissioned by **AMCM Developments Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land adjacent to 87 Grange Lane, Cundy Cross**. The site is located at Ordnance Survey (OS) National Grid Reference SE 37157 06411 with nearby postcode S71 5QF.

A desk study and field survey were undertaken in order to assess the potential of the site to support protected habitats and species and species of conservation concern. Recommendations for further survey, avoidance, mitigation and enhancement – where appropriate - have been made and are summarised in Table 1 on the following page and are detailed in full in Chapter 6 of this report.

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Table 1: summary of ecological receptors at the site and recommended mitigation.

Receptor	Potential Risk to Project if No Action Taken	Cause of Impact Description of Effect	Further Survey Required	Mitigation Required
Designated sites				
Statutorily protected	None	N/A	N/A	N/A
Non-statutorily protected	None	N/A	N/A	N/A
S41 habitat	None	N/A	N/A	N/A
Other habitats	None	N/A	N/A	N/A
Protected species				
Flora (WCA Sch 8, CHSR Sch 5)	None	N/A	N/A	N/A
Invertebrates	None	N/A	N/A	N/A
White-clawed crayfish	None	N/A	N/A	N/A
Fish	None	N/A	N/A	N/A
Great crested newt	None	N/A	N/A	N/A
Reptiles	None	N/A	N/A	N/A
Birds	High	Destruction/disturbance of nests during vegetation clearance	Nesting bird survey if clearance happens in nesting season (1st Feb - 31st Aug)	Dependant on results of survey
Bats	None	N/A	N/A	N/A
Badgers	None	N/A	N/A	N/A
Otters	None	N/A	N/A	N/A
Water voles	None	N/A	N/A	N/A
Beaver	None	N/A	N/A	N/A
Other Species e.g. S41 species	High	Killing/injury of hedgehogs during vegetation clearance	none	Pre-clearance search and clearance supervision by ECoW
Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959)				
	None	N/A	N/A	N/A

Key: S41 habitat/species – habitats and species listed as priority for conservation importance under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.
WCA Sch – Wildlife and Countryside Act 1981 (as amended) Schedule
CHSR – Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

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1. Introduction

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1.1 Background

1.1.1 In June 2024, JCA Limited was instructed by **AMCM Developments Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land adjacent to 87 Grange Lane**, **Cundy Cross** hereafter referred to as 'the site'. The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed works, hereafter referred to as 'the scheme', have the potential to adversely affect any protected or notable habitats or species.

1.2 Scheme Description and Location

1.2.1 The site is located at Ordnance Survey (OS) National Grid Reference SE 37157 06411, with nearby postcode S71 5QF. The site is bordered to the east by the A633 Grange Lane and on all other sides by residential properties.

1.2.2 The scheme is the construction of a dormer bungalow.

1.3 Aims and Objectives

1.3.1 The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed development activities have the potential to adversely affect any protected or notable habitats or species. The following tasks have been undertaken:

- Desktop study – a review of environmental records for the surrounding area to obtain existing information on statutory and non-statutory designated sites of nature conservation interest, and the presence of protected and notable habitats and species within the site and its environs.
- Field surveys – a UKHab Habitat survey involving a site visit to record habitat types and dominant vegetation, including any invasive species. During this survey evidence of protected or notable fauna and habitats or habitat capable of supporting protected or notable fauna was recorded.
- Ecological report – an assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation, and enhancement where appropriate. Locations of any features constituting ecological constraints or of other ecological interest and vegetation recorded on and around the development are included in an accompanying UK Hab

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Habitat Map (**Appendix 1**). This report and the maps are supported by photographs (**Appendix 3**) and information regarding current legislation (**Appendix 6**).

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2. Methodology

2.1 Desktop Study

2.1.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites and European Protected Species (EPS) licensing applications within a 2km radius of the site; the zone of influence (ZoI). In addition, international sites designated for bats within 30km of the site were searched for. The baseline conditions are based on a review of existing available information including:

- MAGIC (Multi-Agency Geographical Information for the Countryside) website (to identify statutory designated sites and EPS licences).
- Ordnance Survey mapping (to identify potentially notable habitats including ponds).
- Aerial photography (to identify potentially notable habitats).
- Data search for records of protected/notable species on and within 2km of the site within the last ten years (exempting bat roosts, of which all records are included) obtained from Sheffield biological Records Centre, the local environmental records centre for Cundy Cross, along with information for non-statutory wildlife sites.

2.1.2 The records were checked against species listed as priority species under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and the Barnsley Biodiversity Action Plan to assess national and regional habitat and species status.

2.2 Field Survey

2.2.1 A UK Hab survey of the site was conducted on 03/07/2024. All areas of the site were investigated and areas around the site where access permitted.

2.2.2 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Vegetation and Habitat Survey (The UK Habitat Classification, Habitat Definitions Version 2.01, UKHab, 2023). Dominant and abundant plant species were recorded for each habitat present.

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2.2.3 The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Wildlife & Countryside Act (WCA) 1981 (as amended), including those given a higher level of legal protection under the NERC Act 2006 and Countryside & Rights of Way (CRoW) Act 2000, and those listed on the Local Biodiversity Action Plan. The following species were considered:

- Invertebrates (including white-clawed crayfish *Austropotamobius pallipes*).
- Great crested newt *Triturus cristatus* freshwater habitat potential within 500m of the site.
- Reptile habitat within the site.
- Nesting and foraging habitat for birds within the site.
- Bat roost potential and foraging habitat within the site.
- Badger *Meles meles* setts within 30m of the site, where accessible.
- Otters *Lutra lutra* and suitable habitat within 30m of the site, where accessible.
- Water vole *Arvicola amphibius* habitat within 20m of the site, where accessible.
- Eurasian beaver *Castor fiber* habitat within 30m of the site, where accessible.
- Other notable species.
- Invasive species.

2.3 Survey Constraints

2.3.1 To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, the survey undertaken focused on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2018), especially those given protection under UK wildlife legislation.

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2.3.2 The optimum time of year for completing the survey is between April and September, as many plant species have a seasonal expression in spring and summer only. The survey was undertaken on 03/07/2024.

2.3.3 The weather conditions during the survey were overcast with light wind and no rain. Recent weather data for this site shows that there had been no weather conditions that would affect the survey, such as heavy rain which would have obliterated field signs such as droppings.

2.3.4 There were no perceived limitations that would significantly impact on the conclusions and recommendations given within this report.

2.3.5 The details of this report will remain valid for a period of 18 months. If works have not commenced within this period or land use on site changes, it is recommended that a new review of the ecological conditions is undertaken.

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3. Desk Study Results

3.1 Statutory Designated Sites

3.1.1 The MAGIC website revealed no internationally designated sites within 2km of the site. The closest such sites are South Pennine Moors Special Area of Conservation (SAC) and Peak District Moors Special Protection Area (SPA), situated approximately 15.9km to the south west of the site

3.1.2 The MAGIC website revealed two nationally designated sites within 2km of the site, detailed in Table 2 below.

Table 2: Nationally designated sites within 2km of the site, identified on MAGIC.

Site Name	Designation	Distance (m) from Site	Reasons for Designation
Dearne Valley Park	LNR	395	No information available
Stairfoot Brickworks	SSSI	1767	Geological interest
Key: LNR – Local Nature Reserve SSSI – Site of Special Scientific Interest			

3.2 Non-statutory Designated Sites

3.2.1 Records received from SBRC revealed three non-statutory designated sites within 2km of the site, detailed in Table 3 below.

Table 3: Non-statutory designated sites within 2km of the site, returned from SBRC.

Site Name	Distance (m) from Site	Reasons for Designation
Stairfoot Disused Railway LWS	190	No information given.
Cliff Wood LWS	240	No information given.
Sunny Bank, horse Carr and Storrs Wood LWS	1400	No information given.
Key: LWS – Local Wildlife Site		

3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory

3.3.1 The MAGIC website revealed no priority habitats within the site.

3.4 Protected and Notable Species

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3.4.1 European Protected Species (EPS) Licence Applications

The MAGIC website revealed four EPS licence applications within 2km of the site;

- a licence granted in 2016 and ending in 2016 to allow for the destruction of breeding site used by soprano pipistrelle. Licence reference: 2016-26581-EPS-MIT.
- a licence granted in 2017 and ending in 2020 to allow for the destruction of breeding site used by soprano pipistrelle. Licence reference: 2016-26581-EPS-MIT-1.
- a licence granted in 2017 and ending in 2021 to allow for the destruction of breeding site used by soprano pipistrelle. Licence reference: 2016-26581-EPS-MIT-2.
- a licence granted in 2017 and ending in 2021 to allow for the destruction of breeding site used by soprano pipistrelle. Licence reference: 2016-26581-EPS-MIT-3.

3.4.2 Records of Protected and Notable Species

3.4.3 Flora

No records of protected or notable flora were returned by SBRC.

3.4.4 Invertebrates (including white-clawed crayfish)

One record of white-letter hairstreak *Satyrium w-album*, a S41 and LBAP species, was received. The record was made 1455m from the site in 2017.

3.4.5 Fish

No records of protected or notable fish species were returned by SBRC.

3.4.6 Amphibians

No records of protected or notable amphibian species were returned by SBRC.

3.4.7 Reptiles

One record of common lizard *Zootoca vivipara*, a S41 and LBAP species, was received. The record was made 1841m from the site in 2019.

3.4.8 Birds

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The following records were received from SBRC:

Table 4: Bird Records Received from SBRC.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
Alcedo atthis	Kingfisher	S41, LBAP	2021	13	564
Bucephala clangula	Goldeneye	WCA	2015	1	1192
Cygnus cygnus	Whooper swan	WCA, LBAP	2016	1	243
Tringa ochropus	Green sandpiper	S41, WCA, LBAP	2016	5	667
Turdus iliacus	Redwing	WCA	2016	5	529
Turdus pilaris	Fieldfare	WCA	2016	2	667
Tyto alba	Barn owl	WCA, LBAP	2018	1	1515

Key:
WCA: Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)
S41: Section 41 of the NERC Act 2006
LBAP: Local Biodiversity Action Plan

3.4.9 Bats

The following records were received from SBRC:

Table 5: Bat Records Received from SBRC.

Scientific Name	Common Name	Designation	Latest Date	Number of records	Distance from Site
Nyctalus noctula	Noctule bat	EPS S41 LBAP	2016	3	1384
Pipistrellus pipistrellus	Common pipistrelle	EPS	2023	10	760

Key:
EPS: European Protected Species: Species listed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
WCA: Schedule 5 of the Wildlife & Countryside Act 1981 (as amended)
S41: Section 41 of the NERC Act 2006
LBAP: Local Biodiversity Action Plan

3.4.10 Bat Roosts

The following records were received from SBRC:

Table 6: Bat Records Received from SBRC.

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Scientific Name	Common Name	Roost type	Date	Distance from Site (m)
Myotis daubentonii	Daubenton's bat	Hibernation	1992	891
Myotis daubentonii	Daubenton's bat	Hibernation	1994	652
Myotis nattereri	Natterer's bat	Hibernation	1989	652
Nyctalus leisleri	Leisler's bat	Not recorded	2005	1904
Nyctalus leisleri	Leisler's bat	Maternity	2007	1607
Pipistrellus pipistrellus	Common pipistrelle	Not recorded	1995	1479

3.4.11 Badgers

No records of badgers were returned by SBRC.

3.4.12 Otters

Three records of otter *Lutra lutra*, an EPS, WCA and LBAP species, were received. The closest record was made 900m from site. The most recent record was made in 2022.

3.4.13 Water Voles

No records of water vole *Arvicola amphibius* were returned by SBRC.

3.4.14 Beaver

No records of beaver *Castor fiber* were returned by SBRC.

3.4.15 Other Notable Species

No records of other notable species were returned by SBRC.

3.4.16 Invasive Species

25 records of American mink *Mustela vison* were received. The closest record was made 795m from the site. The most recent record was made in 2020.

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4. Field Survey Results

4.1 Habitats

4.1.1 G3c5 – *Arrhenatherum* neutral grassland - 10 scattered scrub, 16 tall forbs, 82 vacant or derelict land, 202 young trees - self set, 500 dry, 518 neglected

Other neutral grassland occupies the majority of the site. The sward is dominated by false oat grass *Arrhenatherum elatius* with Yorkshire fog *Holcus lanatus* also present. Other species present include bramble *Rubus fruticosus*, field bindweed *Convolvulus arvensis*, autumn hawkbit *Leontodon hispidus*, nettle *Urtica dioica*, large-leaved avens *Geum macrophyllum*, broad-leaved dock *Rumex obtusifolius*, ragwort *Jacobaea vulgaris*, willowherb *Epilobium* sp., dandelion *Taraxacum officinale*, creeping thistle *Cirsium arvense* and cranesbill *Geranium* sp.

4.1.2 h3d - bramble scrub

A dense stand of bramble is present in the north of the site.

4.2 Protected and Notable Species

4.2.1 Flora

No records of protected or notable flora were returned by SBRC. No such species were noted during the survey. Flora will, therefore, not be mentioned further in this report.

4.2.2 Invertebrates (including white-clawed crayfish)

One record of white-letter hairstreak was received; no other protected or notable invertebrates were recorded. Elm is the sole foodplant of white-letter hairstreak and is not present on site. Invertebrates will, therefore, not be mentioned further in this report.

4.2.3 Fish

There is no aquatic habitat on site or within ZoI. Fish will, therefore, not be mentioned further in this report.

4.2.4 Amphibians

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No records of protected or notable amphibians were received. No such species were noted during the survey. Amphibians will, therefore, not be mentioned further in this report.

4.2.5 Reptiles

One record of common lizard was received. No reptiles were noted during the survey. The site lacks the mosaic of habitats to support basking and foraging reptiles, nor is it connected to areas of such habitat. Reptiles will, therefore, not be mentioned further in this report.

4.2.6 Birds

Seven species of protected or notable bird species were received. The site has the potential to support nesting birds within the bramble scrub on site.

4.2.7 Bats

Records of four bat species were received. The site contains no structures in which bats may roost. The small scale of the site offers little foraging potential and there are no linear habitats present along which bats may commute. Bats will, therefore, not be mentioned further in this report.

4.2.8 Badgers

No records of badgers were received. No evidence for the presence of this species was noted during the survey. Badgers will, therefore, not be mentioned further in this report.

4.2.9 Otters

Three records of otter were received, the closest being 900m from the site. There is no habitat on site suitable for this species, nor is the site connected to suitable habitat. Otter will, therefore, not be mentioned further in this report.

4.2.10 Water Voles

No records of water vole were received. There is no habitat on site suitable for this species, nor is the site connected to suitable habitat. Water vole will, therefore, not be mentioned further in this report.

4.2.11 Beaver

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No records of beaver vole were received. There is no habitat on site suitable for this species, nor is the site connected to suitable habitat. Beaver will, therefore, not be mentioned further in this report.

4.2.12 Other Notable Species

No records of other notable species were received. The site holds the potential to support sheltering hedgehogs within the bramble scrub on site and offers foraging potential within the grassland.

4.2.13 Invasive Species

25 records of American mink were received. No habitat is present on the site to support this species. No other invasive species were noted during the survey. Invasive species will, therefore, not be mentioned further in this report.

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5. Assessment

5.1 Designated Sites

5.1.1 Statutory designated sites

There are no statutory designate sites within the ZoI. The closest such site is Dearne Valley Park LWS located 395m away. Considering the distance between the site and any statutory designated sites identified in the desk study, it is not anticipated that the proposed development will have any impact on any statutory designate site.

5.1.2 Non-statutory designated sites

Three non-statutory designated sites were identified within the ZoI during the desk study. The closest such site is Stairfoot Disused Railway LWS, located 190m from the site. Given the lack of connecting habitats, the distance between the development site and the LWS and the small-scale nature of the development, there are no anticipated adverse impacts on this or any other LWS.

5.2 Habitats

5.2.1 The most valuable habitats for biodiversity within the development site boundary is the bramble scrub. The proposed works will impact this habitat by removing it entirely.

5.2.2 The other habitats described in Chapter 4, Section 4.1 have lower biodiversity value and provide less opportunity to support wildlife. The flora recorded in these habitats is considered to be locally common and widespread and they do not fall into any of the NERC S41 or Local BAP Priority Habitat descriptions.

5.3 Protected and Notable Species

5.3.1 Birds

The bramble scrub on site has the potential to support nesting birds. Should clearance of the bramble scrub take place within the bird breeding season (1st Feb to 31st August), there is the potential for active bird nests to be adversely impacted in contravention of the Wildlife and Countryside Act 1981 (as amended).

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5.3.2 Other Notable Species

The bramble scrub on site has the potential to support sheltering hedgehogs. Under current plans this habitat is not expected to be impacted. Should plans change and any clearance of the bramble scrub be required, there is the potential for hedgehogs to be killed or injured in contravention of the Wildlife and Countryside Act 1981 (as amended).

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6. Recommendations

6.1 Protected and Notable Species

6.1.1 If any bramble scrub is to be removed during the bird nesting season (1st Feb to 31st Aug), a pre-clearance nesting bird survey must be carried out. The survey must take place no more than 24 hours prior to clearance. Should any active bird nests be discovered, they must remain *in situ* with a buffer of undisturbed vegetation until all young have fledged.

6.1.2 If any bramble scrub is to be removed this must be supervised by an Ecological Clerk of Works (ECoW). The scrub must first be searched for the presence of hedgehogs and the clearance undertaken under a watching brief from the ECoW. Should any hedgehogs be discovered during clearance they will be captured by the ECoW and translocated to an area nearby which provides suitable habitat for this species.

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7. References

Guidelines for surveys and report writing:

British Standards Institute (BSI), (2013) *BS 42020:2013, Biodiversity - Code of practice for planning and development*. London.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2015) *Guidelines for Ecological Report Writing*. Winchester.

Websites:

Advice on protected species is consolidated at:
Environmental management: Wildlife and habitat conservation - GOV.UK (2016) *Gov.uk*. Available at: https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation

Magic Map Application (2016) *Magic.defra.gov.uk*. Available at: http://magic.defra.gov.uk/MagicMap.aspx

The RSPB (2016). Available at: http://www.rspb.org.uk/

Surveys and mitigation plans: protected species - Detailed guidance (2015) *Gov.uk*. Available at: https://www.gov.uk/guidance/surveys-and-mitigation-plans-protected-species

Within this detailed guidance on surveys and mitigation information is available on the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

Wildlife licences: when you need to apply - Detailed guidance (2014) *Gov.uk*. Available at: https://www.gov.uk/guidance/wildlife-licences

Within this detailed guidance on licensing information is available on licences for the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

As well as:

- Non-native Bumblebee species
- Deer
- Freshwater fish
- Invertebrates
- Mink, coypu, muskrat and gr squirrel
- Plants

UK Hab (2023) The UK Habitat Classification System. Available at: http:// https://ukhab.org/

Species Specific Information:

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Badgers:

Natural England, (2007) Badgers and Development: A Guide to Best Practice and Licensing.

Competencies for Species Survey: Badger, Chartered Institute of Ecology and Environmental Management CIEEM, 2013

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Dormice:

Bright, P., Morris, P. and Mitchell-Jones, A. (1996) The dormouse conservation handbook. Peterborough: English Nature.

Great Crested Newts:

Langton, T., Beckett, C. and Foster, J. (2001) Great Crested Newt Conservation Handbook. Halesworth: Froglife. pdf

Advice note 4 (revised) - Amphibian Disease Precautions, A Guide for UK Fieldworkers, Amphibian and Reptile Conservation trust, 2017. Accessed 2018-06-21

Otters: *Natural England, (2007) Species Information Note SIN006, Otter: European protected species.*

Reptiles and Amphibians:

Baker, J., Beebee, T., Buckley, J., Gent, T. and Orchard, D. (2011) Amphibian Habitat Management Handbook. 1st ed. Bournemouth: Amphibian and Reptile Conservation.

Edgar, P., Foster, J. and Baker, J. (2010) Reptile Habitat Management Handbook. 1st ed. Bournemouth: Amphibian and Reptile Conservation.

English Nature, (2004). Reptiles: guidelines for developers. Peterborough.

Gent, T. and Gibson, S. (ed.) (2003) Herpetofauna Workers Manual. Bournemouth: JNCC.

Water Voles:

Natural England, (2008) Water voles - the law in practice. Guidance for planners and developers.

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Water Vole Conservation and Management: Lessons From Four Case Studies, Jemma Louise Gaskin, 2016

Stoddart, D.M. (1970), Individual range, dispersal in a population of water voles (Arvicola terrestris (L.)). Journal of Animal Ecology 39, 403-425.

Strachan, R. (2009), Populations and Persistence – Developing a Strategy for Conserving Water Voles in the UK, Presentation to Warwickshire Wildlife Trust, 2nd April 2009, Environment Agency, Wales

Strachan, R. and Holmes-Ling, P (2003), Restoring water voles and other biodiversity to the wider countryside. Wildlife Conservation Research Unit, Oxford.

Strachan, R., Moorehouse, T. and Gelling, M. (2011), Water Vole Conservation Handbook, 3rd Edn, WILDCRU

White-clawed Crayfish:

Peay, S. (2002) Guidance on Habitat for White-clawed Crayfish and its Restoration. Kendal: English Nature

Relevant Legislation:

Wildlife and Countryside Act 1981, (c. 69) (as amended). Available at:
http://www.legislation.gov.uk/ukpga/1981/69

Countryside and Rights of Way Act 2000 (c.37). Available at:
http://www.legislation.gov.uk/ukpga/2000/37/contents

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at:
https://www.legislation.gov.uk/ukdsi/2019/9780111176573

Conservation of natural habitats and of wild fauna and flora Council Directive (92/43/EEC) (The Habitats Directive) (as amended) Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043

Protection of Badgers Act 1992 (c. 51). Available at:
http://www.legislation.gov.uk/ukpga/1992/51/contents

The Hedgerow Regulations 1997 (No. 1160). Available at:
http://www.legislation.gov.uk/uksi/1997/1160/contents/made

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Appendices

Appendix 1: UKHab Habitat Map

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Site name & address

Land adjacent to 87 Grange Lane, Cundy Cross, Barnsley, South Yorkshire, S71 5QF

Key

- Red Line Boundary

Habitats

- Bramble scrub
- Arrhenatherum neutral grassland

Scale

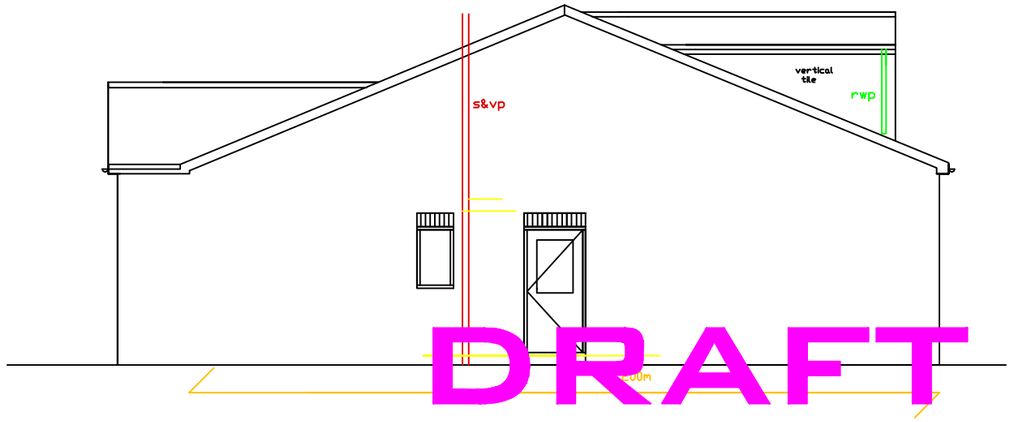
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Site	Client
Land adjacent to 87 Grange Lane	AMCM Developments Ltd
Project	**Author**
22106 PEA	AWe
Plan ref	**Revision**
22106	0

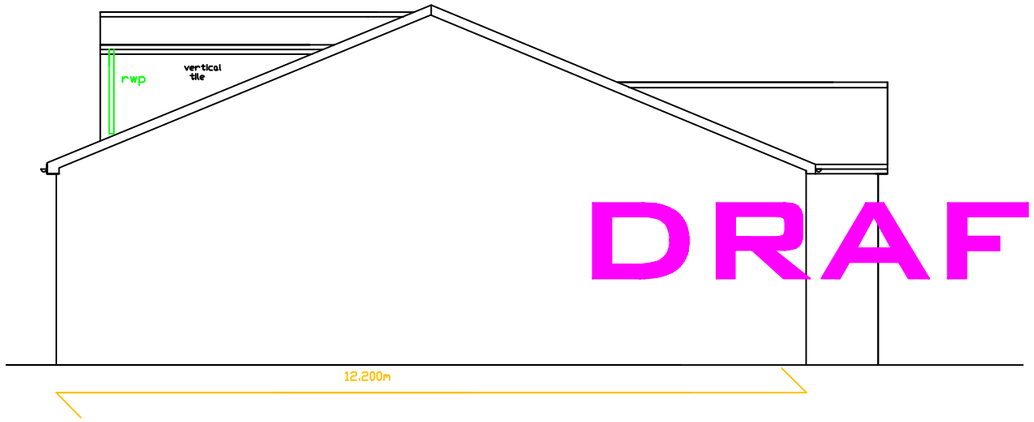
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Appendix 2: Proposed Development Plan

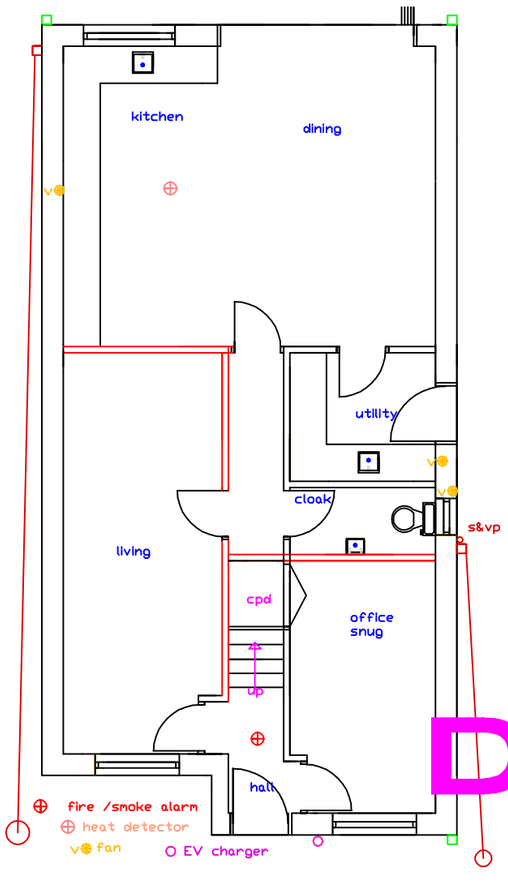
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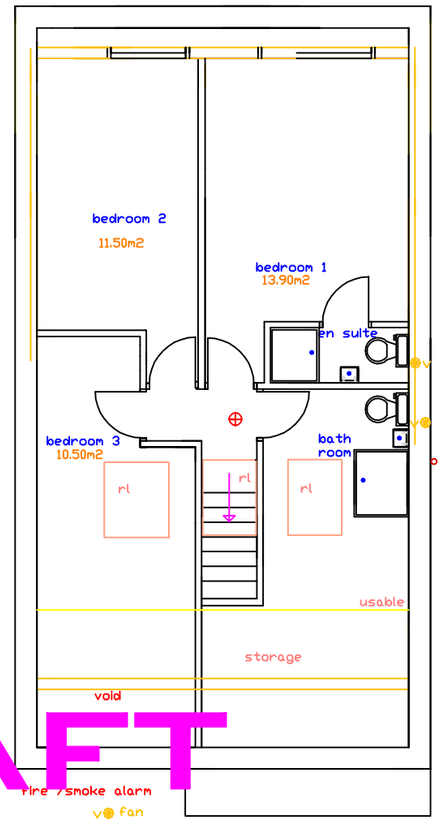
PROPOSED SIDE VIEW A
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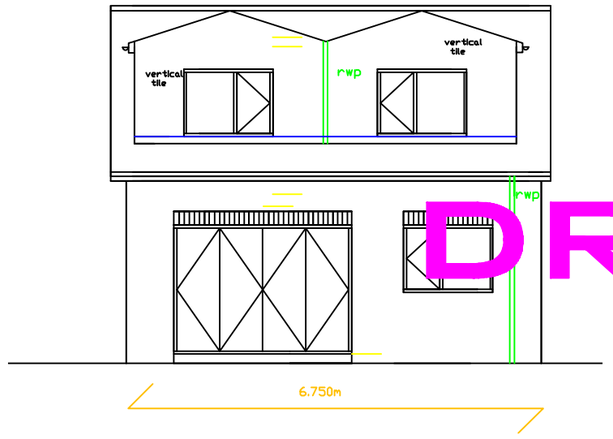
PROPOSED SIDE VIEW B
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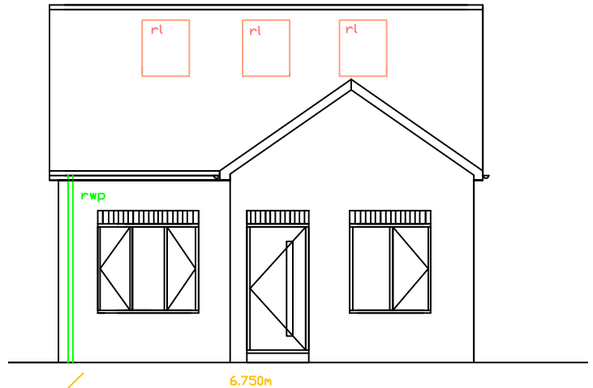
PROPOSED GROUND FLOOR LAYOUT
1:100



PROPOSED FIRST LOFT FLOOR LAYOUT
1:100



PROPOSED REAR VIEW
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PROPOSED FRONT VIEW
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Any discrepancy to be reported to Plans Drawn as soon as possible.

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client:
ADRIAN, MARIA,CASH MERRELL,
87 ,GRANGE LANE,
BARNSLEY
S71 5QF ,
TEL07

drawing title:
NEW BUILD
3 BEDROOM
DORMER BUNGALOW

project:
BARNSLEY MET. BOROUGH COUNCIL . PLANNING & BUILDING CONTROL APPLICATION

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date:
MARCH. 2024

project no.	drg. no.	A3 paper
GL 87	02	

Appendix 3: Photographic Evidence



Photo 1: the site viewed from the southeast.



Photo 2: The site viewed from the northwest.



Photo 3: Bramble scrub present in the north of the site.

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Appendix 4: Bat Survey Guidelines

Figure 1: Guidelines used for assessing the bat roosting suitability of a site (taken from Collins, 2023, Tables 4.1, 4.2, 6.2)

Roosting Suitability	Potential Roosting Features (PRFs) Present
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e., a complete absence of crevices/suitable shelter at all ground/underground levels). Trees: Either no PRFs in the tree or highly unlikely to be any.
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roosting opportunities that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitats, to be used on a regular basis or by larger numbers of bats (i.e., unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats). Trees: PRF-I (Individual) – PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g., maternity or classic cool/stable hibernation site. Trees: PRF-M (Multiple) – PRF is suitable for multiple bats may therefore be used by a maternity colony.

Figure 2: Recommended minimum number of survey visits for presence/likely absence surveys (taken from Collins, 2023, Tables 7.1 and 7.2).

Negligible roost suitability	Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
No futher survey required	One survey visit. One dusk emergence survey, May to August (structures). No further surveys required (trees).	Two separate dusk emergence survey visits. May to September, with at least one survey between May and August.	Three separate dusk emergence survey visits. May to September, with at least two surveys between May and August
September surveys are both weather- and location-dependent. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season.			

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September surveys are likely to miss maternity roosts due to dispersal before this time but may pick up mating roosts.

Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced out at **least three weeks apart**, preferably more. Survey timings **should consider the prevailing conditions in the year of survey, which will vary geographically**. In years with a cold spring, the surveys should not be started in early May, or all completed in May. The surveys should maximise the possibility of detecting maternity roosts, which can switch roosts between pregnancy and lactation, and the **optimum coverage includes the pre-parturition, post-parturition, and mating periods**.

Structures that have been categorised as low potential can be problematic, and the number of surveys required should be judged on a case-by-case basis. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

Figure 3: Survey timings calendar (taken from BCT: Bat Surveys for Professional Ecologists: Good Practice Guidelines; 4th Edition).

Survey type	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Daytime Bat Walkover (DBW)												
PRA – structures[a]												
Emergence survey for maternity or summer roosts[b]												
Emergence survey for transitional/ occasional roosts[b]												
Re-entry surveys[c]												
Emergence survey for mating roosts[b]												
Hibernation survey – structures[a]												
GLTA[d]												
PRF inspection survey – trees												
Ground-level bat activity survey – night-time walkover surveys and automated/static												
Pre-, during and post-hibernation – automated/static bat activity survey												
Swarming survey[e]												
Back-tracking survey												
Trapping and radio-tagging survey[f]												

= optimal period = sub-optimal period

= weather or location dependent (i.e. may not be suitable due to spring and autumn conditions in any one year or in more northerly latitudes). Note that October emergence surveys are not acceptable in Scotland.

= it is not acceptable to trap bats when they are heavily pregnant and have dependent pups. Mothers need to optimise foraging due to the physiological demands of pregnancy and lactation, and pups need to be regularly fed. Interrupting these activities could potentially have an impact on breeding success in the year in question. The timing of birth can vary between years – it may be as early as the end of May or as late as the start of August, therefore caution should be exercised and local information gained on birth dates before trapping activities are carried out during the summer months. Any information gained and decisions made should be kept as a record.

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Appendix 5: Glossary

Activity surveys - are used to assess the level of bat activity at a site. This can be done either by using equipment such as an AnaBat device, or manually walking around a site with a heterodyne detector, documenting the number of bat passes and interceptions.

Dawn surveys - begin around 2 hours before and up to sunrise when bats are returning to their roosts from foraging, and swarming behaviour can be seen close to roost entrances.

Dusk surveys - begin around 30 minutes before sunset and up to 2 hours afterwards. These are done in order to see bats emerging from their roost sites at night.

Echolocation – is a system similar to sonar that allows bats to travel and forage even in total darkness. Bats make a call and then listen to the returning echoes in order to build up a map of their surrounding area. This allows bats to gauge the identity and distance of an object by how long the echo takes to return to them.

Habitat - the ecological or environmental area that is inhabited by a particular species of animal, plant or other type of organism.

Hibernation - is a state of inactivity and metabolic depression characterized by lower body temperature, slower breathing, and lower metabolic rate. Hibernating animals conserve energy, especially during winter when food is short, tapping energy reserves, i.e. body fat, at a slow rate.

Hibernacula - typically consist of underground sites, such as caves and cellars, which remain relatively cold and humid. Bats will hibernate to conserve energy over the winter months when falling temperatures cause a drop in the abundance of insects. These will typically be colonised around November to around March.

Insectivorous – is when an organism feeds exclusively on insects.

Nocturnal - a behaviour characterized by being active during the night and sleeping during the day.

Maternity roosts – colonised around late May early June and consist of mature females and their young. These roosts need to be warm and quiet, and are used up until around August, with females typically leaving first and then the young.

Mating roosts – mating begins around late October to November. Males of most species use special mating calls to attract females. These can include purrs, clicks and buzzing.

Roost – a site where bats live during the day, rear young and hibernate. These can be in man made structures, such as buildings, bridges, tunnels, cellars and mines, or natural features such as mature trees and caves.

Roosts in buildings – many types of buildings will be used by bats. The most likely sites are agricultural buildings (e.g. farmhouses and barns), buildings with exposed wooden beams (greater than 20cm thick), buildings with weather boarding and/or hanging tiles, and buildings close to woodland and/or water.

Roosts in trees – these are typically in mature trees with deep sheltered cracks, under loose sections of bark, or in woodpecker holes.

Species – a group of organisms in which all members can interbreed and produce viable offspring.

Summer roosts (non-breeding) - these are generally occupied by groups of males and immature females during the summer, and are usually only occupied for a short period before the group moves to another location.

Swarming – a behaviour exhibited by bats returning to their roost sites at dawn. Bats can be seen repeatedly flying to and from the roost entrance, making it much easier for consultants to identify where roosts are on a building or structure.

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Temporary/Transitory roosts – These are used after hibernation (March – April) before mature females disperse to maternity roosts and male/immature females colonise summer (non-breeding) roosts. Similarly, temporary roosts form before hibernation (August -October).

Underground Roosts – these are typically used during the winter and can be mines, caves, tunnels or cellars.

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Appendix 6: Protected Species Information

The following species are fully protected in UK law, under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019:

- All UK bat species
- Dormouse
- Great Crested Newt and Natterjack Toad
- Large Blue Butterfly
- Otter
- Pine Marten
- Polecat
- Scottish Wild Cat
- Smooth Snake and Sand Lizard
- Various aquatic and plant species

These species are afforded the highest protection in the UK. Under this protection it is an offence to; deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animal of any such species; deliberately take or destroy the eggs of such an animal, or damage or destroy a breeding site or resting place of such an animal.

In addition to this it is an offence to be in possession of, or to control, transport, sell or exchange, or to offer for sale or exchange, a European Protected species.

The following species are protected under UK law, such as the Wildlife and Countryside Act 1981 (as amended):

- Badger
- Nesting birds
- Red Squirrel
- Reptiles (Adder, Common lizard, Grass snake, Slow worm)
- Water Vole
- White Clawed Crayfish
- Various bird species i.e. Barn Owl
- Various plant species

Therefore under this protection it is an offence to; kill, injure or take any of the above species.

Nesting birds are only protected during the breeding season whilst on their nest. In addition to the adults being protected, the eggs, young and nest itself whilst in use are protected.

The Wildlife and Countryside Act 1981 also contains measures to prevent the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales (e.g. Japanese Knotweed and Himalayan Balsam).

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Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

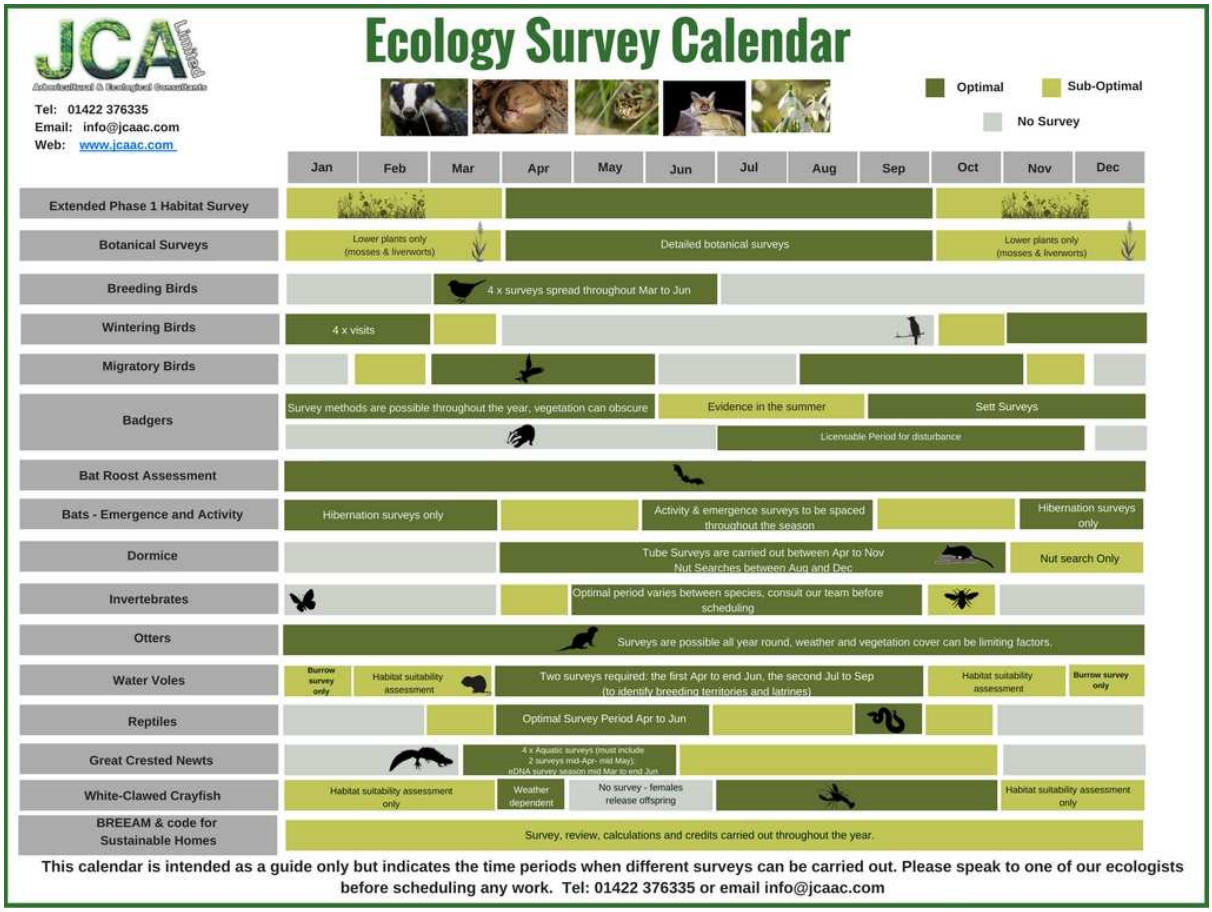
The following habitat types are protected under UK Law:

- Habitats that are used by protected species
- Habitats that fall within designated sites
- Hedgerows
- Individual trees/woods can be protected under Tree Preservation Orders

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Appendix 7: Survey Calendar

Figure 4: Survey calendar for protected species and habitat surveys.



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Appendix 8: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management, ACIEEM.

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence and a Natural England Level 2 bat survey class licence.

James Foster, Assistant Ecologist

BSc (Hons) Biology.

James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has 9 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

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The Information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed

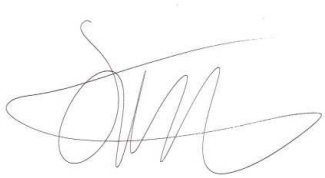


.....

Adam West *BSc (Hons) Animal and Wildlife Management, ACIEEM*

11/07/2024

Reviewed by



.....

James Foster *BSc (Hons) Biology*

11/07/2024

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For and on behalf of ***JCA Ltd***

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Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

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- Tree Safety Surveys
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- Landscape and Orchard Design

Tree Advice for the Legal Profession

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- Personal Injury and Accident Investigation
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Veteran Tree Management

- Ancient Woodland Management
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