PRELIMINARY ECOLOGICAL APPRAISAL

at

Land at Yew Tree Lane
Huddersfield
West Yorkshire
HD9 2NR

Client:
ADP Architects

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Date of Report:
08/08/2024

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	06/08/24	James Foster	23/07/24	James Foster	07/08/24	James Foster	07/08/24	Alex Donovan
							08/08/24	Adam West

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	REDACTED
Bio-security Procedure Completed	
Lone Worker Procedure Completed	

Summary

JCA Limited has been commissioned by **ADP Architects** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land at Yew Tree Lane**. The site is located at Ordnance Survey (OS) National Grid Reference SE 12284 07437 with nearby postcode HD9 2NR.

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.

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	None	No	No
Non-statutorily protected	None	None	No	No
S41 habitat	None	None	No	No
Other habitats	None	None	No	No
Protected species				
Flora (WCA Sch 8, CHSR Sch 5)	None	None	No	No
Invertebrates	Low	Partial removal of the habitats present on site could adversely impact a range of invertebrates, as well as species which feed on invertebrates.	No	Native scrub and wildflower planting is recommended to mitigate for the loss of habitat and floral variety.
White-clawed crayfish	None	None	No	No
Fish	None	None	No	No
Great crested newt	None	None	No	No
Reptiles	None	None	No	No
Birds	High	The removal of the vegetation and renovation/demolition of the building on the site has the potential to cause disturbance to breeding birds, resulting in a breach of legislation.	Dependant on the timing of the works.	A preconstruction site walkover (including internal access) is required prior to any vegetation removal or building renovation/demolition commencing. If removal occurs outside of the breeding bird period (1st February until 31st August) and birds are found, the removal must

				cease immediately, and a suitably competent ecologist contacted.
Bats	Moderate	There are two buildings onsite that have bat roosting potential. One building has moderate potential and one building has low potential. The site holds low potential for commuting and foraging bat species	Yes – two emergence surveys for the buildings with moderate bat roosting potential and one emergence survey for the buildings with low potential, between May and September inclusive, with at least one survey during May - August.	Dependent on the results of the surveys. If a roost is confirmed, a Mitigation Licence would need to be applied for from Natural England. For artificial lighting within the development, guidance from Institute of Lighting Professionals (08/2023) should be followed.
Badgers	Low	Potential to disturb any foraging or commuting badgers which may be utilising the site.	No	Any excavation of the site should be covered overnight, or if not possible, a safe exit route provided for badgers to leave the site, such as an artificial ramp to aid their exit.
Otters	None	None	No	No
Water voles	None	None	No	No
Beaver	None	None	No	No
Other Species e.g. S41 species	Low	Potential to disturb any foraging or commuting brown hare which may be utilising the site.	No	Any excavation of the site should be covered overnight, or if not possible, a safe exit route provided for brown hare to leave the site, such as an

				artificial ramp to aid their exit.
Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959)				
No invasive species were found on site	None	None	No	No
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				

Contents

1. Introduction

1.1 Background

1.1.1 In July 2024, JCA Limited was instructed by **ADP Architects** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land at Yew Tree Lane**, 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 12197 07456, with nearby postcode HD9 2NR. The site is bordered on all sides by arable grasslands with residential buildings to the north and west and a small woodland with two ponds further afield to the south.

1.2.2 The scheme is the renovation of the existing building on the site, the construction of a new barn and new landscaping.

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 Habitat Map (**Appendix 1**). This report and the maps are supported by photographs (**Appendix 3**) and information regarding current legislation (**Appendix 7**).

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 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 West Yorkshire Ecology Service (WYES), the local environmental records centre for West Yorkshire, 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 West Yorkshire Biodiversity Action Plan (WYBAP) and Kirklees Biodiversity Action Plan (KBAP) 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 23/07/2024. 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.

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.

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 23/07/2024.

2.3.3 The weather conditions during the survey are given in Table 2 below:

Table 2: Weather Conditions during the survey.

Date	Temperature (°C)	Wind speed (mph)	Cloud cover (%)	Precipitation	Humidity
23/07/24	21	7 South	30	None	60%

2.3.4 The weather on the days leading up to the survey were similar with exception of heavy rain showers. Heavy rain can wash away or damage potential field signs (such as droppings, hairs and tracks) making identification or observation more difficult, this is considered a minor constraint to the survey.

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.

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.

3.1.2 The MAGIC website revealed one nationally designated site within 2km of the site. Rake Dike is designated as a Special site of Scientific Interest (SSSI). It is designated for its geological features and is located 1960m southwest of the site.

3.1.3 The site falls into the SSSI Impact Risk Zone of Dark Peak SSSI.

3.2 Non-statutory Designated Sites

3.2.1 Records received from WYES revealed six 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 WYES.

Site Name	Distance (m) from Site	Reasons for Designation
Carr Green Meadows, Holmbridge LWS	90	Neutral grassland of local importance. Included in the Local Wildlife Network.
New Laith Fields Holmbridge LWS	315	Neutral species-rich grassland included in the Local Wildlife Network.
Digley Reservoir and Marsden Clough LWS	810	Mixture of habitats, including standing and running water habitats, woodland, heath and acid grassland that supports lapwing, cuckoo, common toad and a range of invertebrates. Included in the Local Wildlife Network
Malkin House Wood LWS	900	Ancient, replanted acid woodland, with grasslands, and standing and running water habitats. Included in the Local Wildlife Network.
Yateholme Reservoirs and Plantations LWS	960	Mixture of habitats including standing and running water, woodland, heath, acid grassland and mire which supports linnet, curlew, cuckoo, lapwing, common toad and a range of invertebrates. Included in the Local Wildlife Network
Digley Quarries LGS	1150	Geological site of local importance.
Key: LWS – Local Wildlife Site LGS – Local Geological Site		

3.2.2 The site is included in the local Bat Alert Zone but not in the Local Wildlife Habitat Network.

3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory

3.3.1 The MAGIC website revealed no priority habitats within or immediately adjacent to the site.

3.4 Protected and Notable Species

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 01/01/2018 and ending in 31/08/2018 to allow for the destruction of a resting place used by brown long-eared bats. Licence reference: 2017-32406-EPS-MIT.
- a licence granted in 01/05/2018 and ending in 31/07/2024 to allow for the damage of a resting place used by common pipistrelle and whiskered bat. Licence reference: 2018-33329-EPS-MIT.
- a licence granted in 13/08/2018 and ending in 31/07/2024 to allow for the destruction of a resting place used by brown long-eared bats. Licence reference: 2018-33329-EPS-MIT-1.
- a licence granted in 07/11/2018 and ending in 31/07/2024 to allow for the destruction of a resting place used by common pipistrelle and whiskered bat. Licence reference: 2018-33329-EPS-MIT-2.

3.4.2 Records of Protected and Notable Species

3.4.3 Flora

Eight records of English bluebell *Hyacinthoides non-scripta*, a KBAP and Schedule 8 WCA (as amended) designated species (in respect of Section 13(2) only: protected from sale and trade), within 2km of the site were returned by WYES. The most recent record was from 2022, and the closest record is located 808m from the site.

3.4.4 Invertebrates (including white-clawed crayfish)

The following records were received from WYES:

Table 4: Invertebrate Records Received from WYES.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
Acronicta rumicis	Knot grass moth	S41 WYBAP	2016	1	527
Apamea remissa	Dusky brocade	S41 WYBAP	2016	1	527
Ceramica pisi	Broom Moth	S41	2016	1	527
Spilosoma lubricipeda	White ermine	S41 WYBAP	2016	1	527
Spilosoma lutea	Buff ermine	S41	2016	1	527
Xanthorhoe ferrugata	Dark-barred twin-spot carpet	S41 WYBAP	2016	1	527

Key:
S41: Section 41 of the NERC Act 2006
WYBAP: West Yorkshire Biodiversity Action Plan

3.4.5 Fish

No records of fish within 2km of the site were returned by WYES.

3.4.6 Amphibians

No records of amphibians within 2km of the site were returned by WYES.

3.4.7 Reptiles

No records of reptiles within 2km of the site were returned by WYES.

3.4.8 Birds

The following records were received from WYES:

Table 5: Bird Records Received from WYES.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
Cuculus canorus	Cuckoo	S41 WYBAP	2014	2	1559
Falco tinnunculus	Kestrel	KBAP WYBAP	2014	2	1559
Lagopus lagopus	Red grouse	KBAP WYBAP	2014	1	1559
Hirundo rustica	Swallow	KBAP WYBAP	2016	1	1880
Muscicapa striata	Spotted flycatcher	S41 KBAP	2014	1	1559

		WYBAP			
Numenius arquata	Curlew	S41 KBAP WYBAP	2017	2	1559
Pyrrhula pyrrhula	Bullfinch	S41 KBAP WYBAP	2014	1	1559
Turdus pilaris	Fieldfare	WCA	2014	1	1559
Turdus torquatus	Ring ouzel	S41 KBAP WYBAP	2014	1	1559
Vanellus vanellus	Lapwing	S41 KBAP WYBAP	2014	1	1559

Key:
S41: Section 41 of the NERC Act 2006
KBAP: Kirklees Biodiversity Action Plan
WYBAP: West Yorkshire Biodiversity Action Plan

3.4.9 Bats

The following records were received from WYES:

Table 6: Bat Records Received from WYES.

Scientific Name	Common Name	Designation	Latest Date	Number of records	Distance from Site
Myotis sp.	Unidentified *Myotis* spp	EPS WCA	2021	2	815
Myotis daubentonii	Daubenton's bat	EPS WCA KBAP WYBAP	2014	1	693
Myotis mystacinus	Whiskered Bat	EPS WCA WYBAP KBAP	2015	1	845
Nyctalus leisleri	Leisler's bat	EPS WCA KBAP WYBAP	2023	3	638
Nyctalus noctula	Noctule bat	EPS WCA S41	2018	4	693

		WYBAP			
Pipistrellus pipistrellus	Common pipistrelle	EPS WCA KBAP WYBAP	2017	9	653
Pipistrellus pygmaeus	Soprano pipistrelle	EPS WCA S41 WYBAP	2014	1	1731
Plecotus auritus	Brown Long-eared Bat	EPS WCA S41 WYBAP	2023	4	638

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
KBAP: Kirklees Biodiversity Action Plan
WYBAP: West Yorkshire Biodiversity Action Plan

3.4.10 Bat Roosts

The following records were received from WYES:

Table 7: Bat Records Received from WYES.

Scientific Name	Common Name	Roost type	Date	Distance from Site (m)
Myotis sp.	Unidentified Myotis bat	Unspecified: 1 individual	2016	841
Myotis sp.	Unidentified Myotis bat	Unspecified: 1 individual	2010	1315
Pipistrellus pipistrellus	Common pipistrelle	Maternity roost	2015	893
Pipistrellus pipistrellus	Common pipistrelle	Unspecified: 1 individual	2016	854
Pipistrellus pipistrellus	Common pipistrelle	Unspecified: 1 individual	2014	1731
Pipistrellus pipistrellus	Common pipistrelle	Unspecified	2021	815
Pipistrellus pipistrellus	Common pipistrelle	Unspecified: 2 individuals	2010	1215

Pipistrellus pipistrellus	Common pipistrelle	Unspecified	2010	1216
Pipistrellus pipistrellus	Common pipistrelle	Unspecified: 1 individual	2018	1358
Pipistrellus pipistrellus	Common pipistrelle	Unspecified	2023	638
Pipistrellus pipistrellus	Common pipistrelle	Unspecified: 1 individual	2010	655
Pipistrellus pipistrellus	Common pipistrelle	Transitional: 1 individual	2012	1399
Pipistrellus sp.	Unidentified Pipistrelle bat	Unspecified	2007	457
Plecotus auritus	Brown Long-eared Bat	Unspecified: 1 individual	2017	1818
Plecotus auritus	Brown Long-eared Bat	Unspecified	2017	1813
Plecotus auritus	Brown Long-eared Bat	Unspecified	2018	1355
Vespertilionidae sp.	Unidentified bat species	Unspecified	2012	178
Vespertilionidae sp.	Unidentified bat species	Unspecified	2003	949
Vespertilionidae sp.	Unidentified bat species	Unspecified	2003	1656
Vespertilionidae sp.	Unidentified bat species	Unspecified	2014	1919

3.4.11 Badgers

Records of badger *Meles meles* a Schedule 6 WCA (as amended) and also protected under the Protection of Badgers Act 1992, within 2km of the site were returned by WYES. The site does not fall into the area of increased probability of badger activity.

3.4.12 Otters

No records of otter *Lutra lutra* within 2km of the site were returned by WYES.

3.4.13 Water Voles

Six records of water vole *Arvicola amphibius,* a Schedule 5 WCA (as amended), NERC S41 and KBAP designated species, within 2km of the site were returned

by WYES. The most recent record was from 2023, and the closest record is located 573m from the site.

3.4.14 Beaver

No records of beaver *Castor fiber* within 2km of the site were returned by WYES.

3.4.15 Other Notable Species

One record of brown hare *Lepus europaeus,* a NERC S41, KBAP and WYBAP designated species, within 2km of the site were returned by WYES. The most recent record was from 2016, and the closest record is located 1316m from the site.

3.4.16 Invasive Species

The following records were received from WYES:

Table 8: Invasive Species Records Received from WYES.

Scientific name	Common name	Designation	Latest Date	Number of records	Distance from site (m)
Branta canadensis	Canada Goose	WCA	2016	2	1955
Crocosmia pottsii x aurea = C. x crocosmiiflora	Montbretia	WCA	2016	1	1195
Fallopia japonica	Japanese Knotweed	WCA	2022	276	564
Impatiens glandulifera	Himalayan Balsam	WCA	2016	9	623
Rhododendron ponticum	Rhododendron ponticum	WCA	2022	8	849
Rosa rugosa	Japanese Rose	WCA	2016	1	1609

Key:
WCA: Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)

4. Field Survey Results

4.1 Habitats

4.1.1 g4 – Modified grassland: 32 – Scattered trees, 81 – Ruderal or ephemeral, 103 – Horse grazed, 202 – Young trees – self-set, 510 – Bare ground.

Modified grassland is located on the east and south of the site, it contains scattered trees, tall ruderal species in some areas, young self-set trees, areas of bare ground and is grazed by horses (**See Appendix 1 and Appendix 3 photos 1 – 3**). Species identified here include sycamore *Acer pseudoplatanus,* creeping bent *Agrostis stolonifera,* meadow foxtail *Alopecurus pratensis,* soft brome *Bromus hordeaceus,* hawthorn *Crataegus monogyna,* cock's-foot *Dactylus glomerata,* fringed willowherb *Epilobium ciliatum,* beech *Fagus sylvatica,* ash *Fraxinus excelsior,* meadow crane's-bill *Geranium pratense,* herb Robert *Geranium robertianum,* Yorkshire fog *Holcus lanatus,* holly *Ilex aquifolium,* nipplewort *Lapsana communis,* meadow pea *Lathyrus pratensis,* perennial ryegrass *Lolium perenne,* redshank *Persicaria maculosa,* common plantain *Plantago major,* self-heal *Prunella vulgaris,* bracken *Pteridium aquilinum,* meadow buttercup *Ranunculus acris,* creeping buttercup *Ranunculus repens,* bramble *Rubus fruticosus,* sorrel *Rumex acetosa,* broad-leaved dock *Rumex obtusifolius,* goat willow *Salix caprea,* elder *Sambucus nigra,* autumn hawkbit *Scorzoneroides autumnalis,* ragwort *Senecio jacobaea,* rowan *Sorbus aucuparia,* chickweed *Stellaria media,* dandelion *Taraxacum officinale,* red clover *Trifolium pratense* and stinging nettle *Urtica dioica.*

4.1.2 u1b – Developed land – sealed surface

Developed land – sealed surface is located around the buildings on the north of the site in the form of access paths to the buildings.

4.1.3 u1b5 – Buildings

There are two buildings on site. Building 1 is two storeys, constructed of stone with a single pitched roof made of traditional stone, with a catslide on the southern aspect with a steel corrugated roof and another single storey extension with a single pitched roof of stone on the eastern aspect. Building 2 is a single storey storage shed constructed of stone with a lean-

to stone roof and a wide empty door frame on the western aspect (**See Appendix 1 and Appendix 3 photos 3 – 12**).

4.1.4 u1c – Artificial unvegetated – unsealed surface

Artificial unvegetated – unsealed surface is located on the northeast of the site in the form of a gravel driveway (**See Appendix 1 and Appendix 3 photos 1**).

4.2 Protected and Notable Species

4.2.1 Flora

Eight records of English bluebell were returned by WYES. There is potentially suitable habitat on the site to support bluebells. No English bluebells or any other notable or protected flora species were identified on the site. However, the survey was conducted outside of the bluebell flowering period, this is a potential constraint as presence cannot be reasonably discounted.

4.2.2 Invertebrates (including white-clawed crayfish)

Six records of six notable invertebrate species were returned by WYES. There is potentially suitable habitat on the site to support notable invertebrate species. The grassland contains a range of plants suitable for foraging moth and butterfly species. Additionally, ragwort was found on the site, which is the sole food plant for the cinnabar moth *Tyria jacobaeae* caterpillar.

No records of white-clawed crayfish were returned by WYES and there is no potentially suitable habitat on or adjacent to the site to support white-clawed crayfish. White-clawed crayfish, therefore, will not be mentioned further in this report.

4.2.3 Fish

No records of fish were returned by WYES and there is no potentially suitable habitat on or adjacent to the site to support fish. Fish, therefore, will not be mentioned further in this report.

4.2.4 Amphibians

No records of amphibians were returned by WYES. There is no potentially suitable habitat on or adjacent to the site to support amphibians and limited habitat connectivity to potentially suitable habitats further afield. Under current proposals habitat clearance is limited to two trees and modified grassland,

amphibians are unlikely to be adversely affected by the proposal. Amphibians, therefore, will not be mentioned further in this report.

4.2.5 Reptiles

No records of reptiles were returned by WYES. There is no potentially suitable habitat on or adjacent to the site to support reptiles and limited habitat connectivity to potentially suitable habitats further afield. Under current proposals habitat clearance is limited to two trees and modified grassland, reptiles are unlikely to be adversely affected by the proposal. Reptiles, therefore, will not be mentioned further in this report.

4.2.6 Birds

13 records of ten species and one record of one Schedule 1 WCA (as amended) designated species were returned by WYES. There is potentially suitable habitat on the site to support nesting bird species. Both buildings and the trees on the site have the potential to support nesting birds. No notable or protected bird species were identified on the site.

4.2.7 Bats

25 field records of seven confirmed species and 20 roost records of two confirmed species were returned by WYES. There is potentially suitable habitat on the site to support commuting, foraging and roosting bats. Both buildings and several trees on the site contained potential roosting features and the trees on the site also have the potential to support commuting and foraging bats.

4.2.8 Badgers

Records of badger were returned by WYES. No field signs of badger or badger setts were identified on or adjacent to the site. There is however potentially suitable habitat for badgers on the site. Badgers are a highly mobile species and may be utilising the site for dispersal.

4.2.9 Otters

No records of otter were returned by WYES and there is no potentially suitable habitat on or adjacent to the site to support otter. Otter, therefore, will not be mentioned further in this report.

4.2.10 Water Voles

Six records of water vole were returned by WYES. There is no potentially suitable habitat on or adjacent to the site to support water vole. There is

however potentially suitable habitat within 150m of the site but limited to no suitable habitat connectivity between the site and potentially suitable habitats further afield. Water vole, therefore, will not be mentioned further in this report.

4.2.11 Beaver

No records of beaver were returned by WYES and there is no potentially suitable habitat on or adjacent to the site to support beaver. Beaver, therefore, will not be mentioned further in this report.

4.2.12 Other Notable Species

One record of brown hare was returned by WYES. There is potentially suitable habitat adjacent to the site to support brown hare and brown hare are highly mobile and could be utilising the site for dispersal.

4.2.13 Invasive Species

297 records of six species were returned by WYES. No Schedule 9 WCA (as amended) invasive species were identified on the site. Invasive species, therefore, will not be mentioned further in this report.

5. Assessment

5.1 Designated Sites

5.1.1 Statutory designated sites

The MAGIC website revealed one nationally designated site within 2km of the site. Rake Dike is a Special site of Scientific Interest (SSSI) and is located 1960m southwest of the site. Due to the distance from the site and the nature of the development any adverse effects to the SSSI are not anticipated.

The site falls into the SSSI Impact Risk Zone of Dark Peak SSSI. Due to the distance from the site and the nature of the development any adverse effects to the SSSI are not anticipated.

5.1.2 Non-statutory designated sites

Records received from WYES revealed six non-statutory designated sites within 2km of the site. The closest is Carr Green Meadows Local Wildlife Site LWS, which is located 90m from the site. However, due to the nature and small scale of the works any adverse effects to the LWS are not anticipated.

5.2 Habitats

5.2.1 The most valuable habitats for biodiversity within the development site boundary are the scattered trees and potentially the buildings. The proposed works will impact the scattered trees and grassland by removal. Building 1 will be renovated and Building 2 will be demolished.

5.2.2 The other habitats described in Chapter 4, Section 4.1 have lower biodiversity and provide less opportunity to support protected or notable species. 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 Flora

Eight records of English bluebell were returned by WYES. There is potentially suitable habitat on the site to support bluebells. The scattered trees could potentially support English bluebells. However, the site is extensively managed as grazing land for horses and the site lacks potentially suitable connectivity to potentially suitable habitats further afield. English bluebells or any other flora species, therefore, will not be mentioned further in this report

5.3.2 Invertebrates

Six records of six notable invertebrate species were returned by WYES. The grassland contains a range of plants suitable for foraging moth and butterfly species and ragwort was found on the site, which is the sole food plant for the cinnabar moth caterpillar. Under current development plans Building 1 is to be renovated, Building 2 is to be demolished and, two scattered trees and sections of grassland are to be lost to the development, which could adversely affect invertebrates and the species that feed on them, such as birds and bats. Further recommendations are therefore provided in **Section 6.2.1.**

5.3.3 Birds

13 records of ten species and one record of one Schedule 1 WCA (as amended) designated species were returned by WYES. Both buildings and the trees on the site have the potential to support nesting birds. Under current development plans Building 1 is to be renovated, Building 2 is to be demolished and, two scattered trees and sections of grassland are to be lost to the development, which could adversely affect nesting birds. Further recommendations are therefore provided in **Section 6.2.2.**

5.3.4 Bats

25 field records of seven confirmed species and 20 roost records of two confirmed species were returned by WYES. Both buildings and several trees on the site contained potential roosting features and the trees on the site also have the potential to support commuting and foraging bats. None of the trees on the site are to removed to facilitate the development and the site as a whole was judged to be of Low potential to support commuting and foraging bats.

Building Assessment

Building 1:

Potential Roosting Features PRESENT: Gaps are present in at least 31 locations.

There are gaps due to missing mortar on all aspects, gaps in the eaves on the north, east and southern aspects, lifted rooftiles on the north and southern aspects, empty window frames on the southern aspect, air vents on the east and western aspects and missing bricks on the northern aspect. (**Appendix 3, photo 3, 5 & 7 - 11 and Appendix 4**).

Bat Roost Potential: Moderate

Building 2:

Potential Roosting Features PRESENT: Gaps are present in at least five locations.

There is missing mortar on the north, east and southern aspects and missing bricks on the eastern aspect (**Appendix 3, photo 4, 6 & 12 and Appendix 4**).

Bat Roost Potential: Low

Under current development plans Building 1 is to be renovated, Building 2 is to be demolished and, two scattered trees and sections of grassland are to be lost to the development, which could adversely affect commuting, foraging and roosting bats. Further recommendations are therefore provided in **Section 6.2.3.**

5.3.5 Badgers

Badgers are a highly mobile species and may be utilising the site for dispersal. Under current development plans Building 1 is to be renovated, Building 2 is to be demolished and, two scattered trees and sections of grassland are to be lost to the development, which could adversely affect commuting and foraging badgers. Further recommendations are therefore provided in **Section 6.2.4.**

5.3.6 Other Notable Species

One record of brown hare was returned by WYES. There is potentially suitable habitat adjacent to the site to support brown hare and brown hare are highly mobile and could be utilising the site for dispersal. Under current development plans Building 1 is to be renovated, Building 2 is to be demolished and, two scattered trees and sections of grassland are to be lost to the development, which could adversely commuting and foraging brown hare. Further recommendations are therefore provided in **Section 6.2.5.**

6. Recommendations

6.1 Habitats

6.1.1 The proposed works provide an opportunity to institute enhancement for biodiversity through native wildflower, shrub and tree planting and the addition of faunal boxes. A landscaping plan should be devised which incorporates, as far as practicable, native species with known benefits to wildlife common in the area.

6.2 Protected and Notable Species

6.2.1 Invertebrates

Native scrub and wildflower planting is recommended to mitigate for the loss of habitat and floral variety which will affect many generalist invertebrate species on site and species which may forage on invertebrates such as bats and birds.

6.2.2 Birds

The vegetation and buildings onsite provide high nesting potential for breeding bird species. In the UK, the key breeding period for birds is from **1st February until 31st August** (depending on species and behaviour). **A preconstruction site walkover** no more than 24 hours prior to any renovation, demolition or vegetation removal is required, and if removal occurs outside of the breeding bird period and birds are found, **the removal must cease immediately, and a suitably competent ecologist contacted**.

6.2.3 Bats

The buildings on site were judged to be of 'Low' and 'Moderate' potential to support roosting bats. The following must be undertaken:

- **One** bat emergence survey is required on Building 2, which have been judged to be of low potential for roosting bats. The bat survey must be carried out between May and August in suitable weather conditions.
- **Two** bat emergence surveys are required on Building 1, which have been judged to be of moderate potential for roosting bats. The bat surveys must be carried out between May and September in suitable weather conditions, with at least one survey between May and August, and with a minimum of 3 weeks between each survey.

All lighting must consider wildlife and be in accordance with the ILP Guidance GN08 (2023). A key point is the avoidance of internal and external light spill. Where possible, lighting should be timed, or on sensors and avoid the hours between sunset and sunrise, when bats are out foraging.

Lighting Scheme: The development will likely increase lighting levels. All lighting must consider wildlife and be in accordance with ILP Guidance. A key point is the avoidance of internal and external light spill. Where possible, lighting should be timed, or on sensors and avoid the hours between sunset and sunrise, when bats are out foraging.

Artificial light is known to deter bats from entering lit areas. The development must incorporate a wildlife sensitive lighting scheme. In particular, obtrusive light is to be prevented from reaching potential foraging and commuting routes, both from new exterior and interior lights. Guidance published by the Institution of Lighting Professionals (2023) is to be followed when designing the lighting scheme for the development.

It is Important to avoid:

- Uniform levels of luminance across the site.
- Metal halide and florescent lighting.
- Upward tilting lighting that increases skyline luminance.
- Instead, the following should be installed:
- Dark buffer zones.
- Screening in the form of vegetation, fences, and structures.
- Appropriately designated darkened areas.
- Luminaries absent of UV elements.
- LED luminaries with a sharp cut-off, low intensity, and good rendition.
- A warm white spectrum (<2700 kelvin) to reduce blue light.
- Peak luminaire wavelength at a minimum of 550nm.
- Downward directional luminaires with upward light ratios of 0%.
- Lower light columns to limit light spill.
- Recessed internal light fixtures.
- Window glazing treatments or automated blind systems.

6.2.4 Badgers

To permit badger migration and safe passage of badgers through the site, any excavations created during the development stage must be covered at night or appropriate escape routes implemented. Planks are to be placed at a 45-degree angle for badgers to escape safely. Open pipes must also be capped.

6.2.5 Other Notable Species

To permit brown hare migration and safe passage of brown hare through the site, any excavations created during the development stage must be covered or appropriate escape routes implemented. Planks are to be placed at a 45-degree angle for brown hare and other species to escape safely. Any open pipes must also be capped.

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.

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

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

Species Specific Information:

Badgers:

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

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Mitchell-Jones, A.J. & McLeish, A.P. (2012) The Bat Workers' Manual. Pelagic Publishing, Exeter.

Bats: surveys and mitigation for development projects, https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects Accessed 2018-06-21

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

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

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

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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

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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

Appendices

Appendix 1: UKHab Habitat Map

Site name & address

Land at Yew Tree Lane, Huddersfield, West Yorkshire, HD9 2NR

Key

- Red Line Boundary

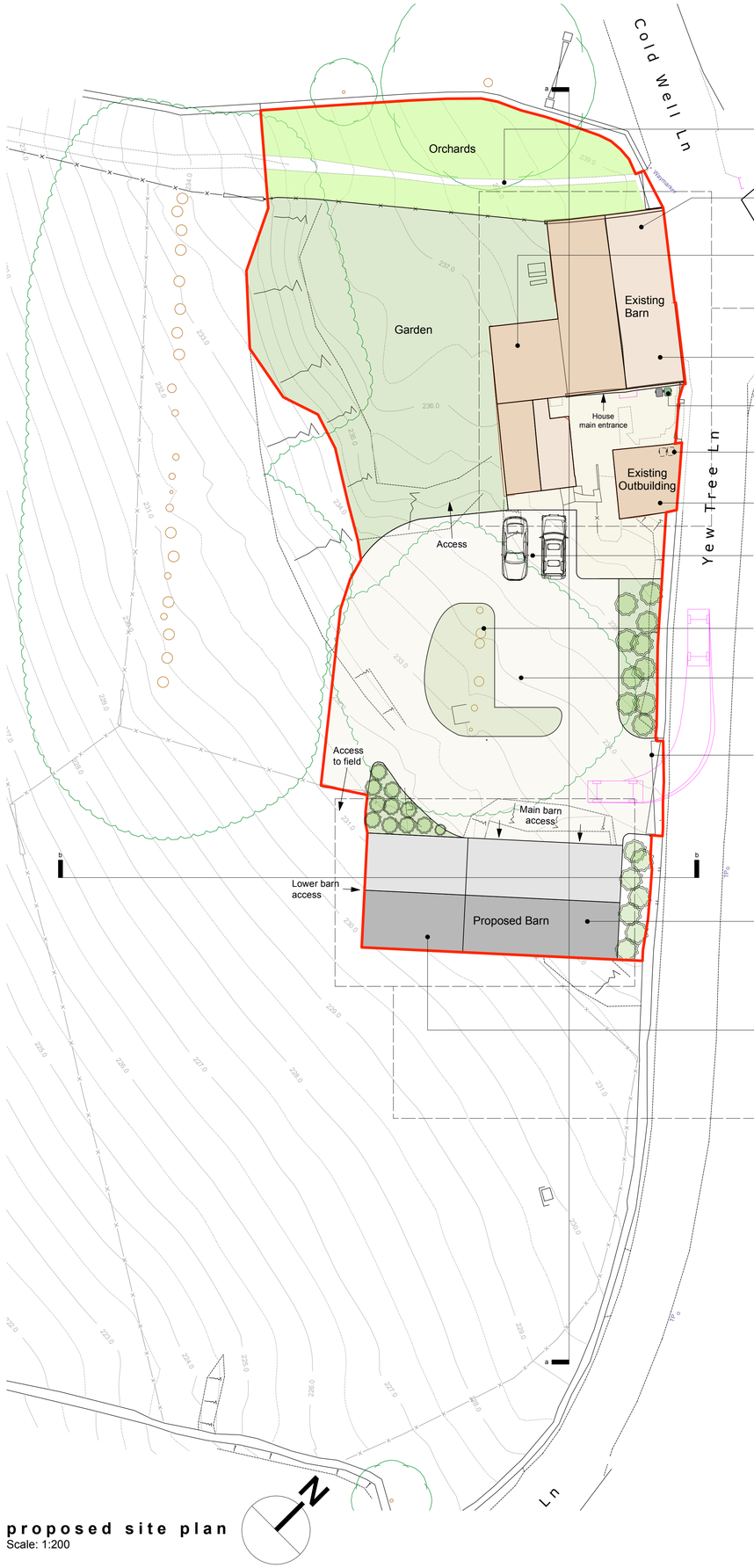
Habitats

- g4 – Modified grassland
  32 – Scattered trees
  81 – Ruderal or ephemeral
  103 – Horse grazed
  202 – Young trees – self-set
  510 – Bare ground
- u1b – Developed land – sealed surface
- u1b5 – Buildings
- u1c – Artificial unvegetated – unsealed surface
- Tree

Scale 0 10 20 m

Site	Client
Land at Yew Tree Lane	ADP Architects
Project Preliminary Ecological Appraisal	**Author** JF
Plan ref 22148/JF	**Revision** 0

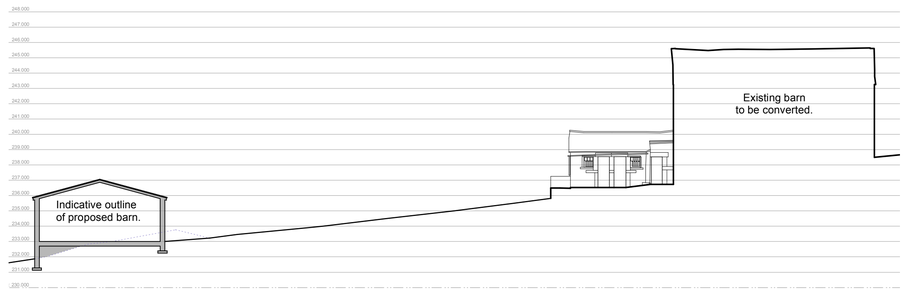
Appendix 2: Proposed Development Plan



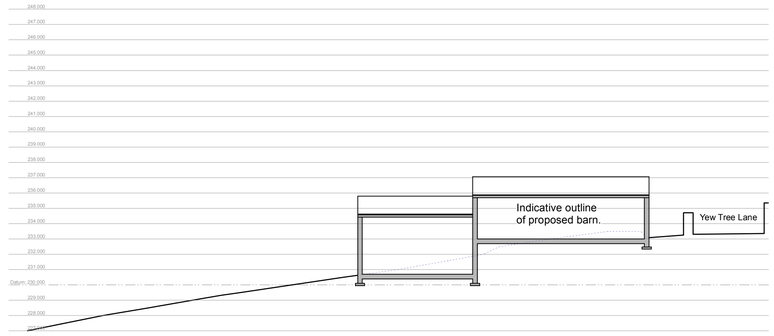
proposed site plan
Scale: 1:200

View of existing barn from Yew Tree Lane.


View of existing barn and out-building looking up from Yew Tree Lane.

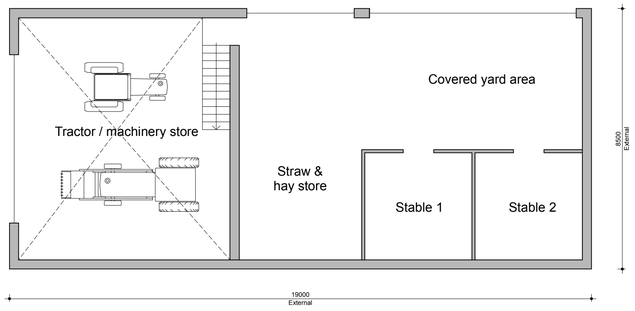


site section a–a
Scale: 1:200

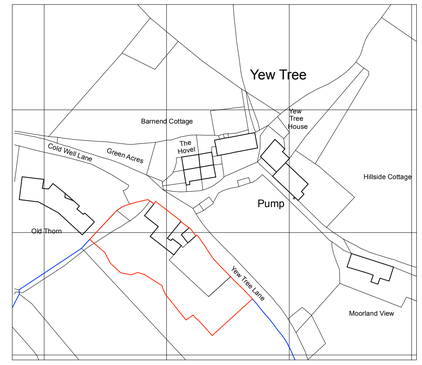


site section b–b
Scale: 1:200

indicative barn styles
Scale: N/A



indicative barn plan
Scale: 1:100



location plan
Scale: 1:1250

rev.	description	date	drawn	appvd
P02	Drawing updated following client comments	26.06.24	JS	NG
P01	Drawing originated	21.06.24	JS	NG

project Barn conversion to dwelling and proposed stables.
at Yew Tree Lane, Holmbridge, Holmfirth, HD9 2NR.
for Mr T. and Mrs W. Yates

title Pre-application as proposed
number 23041D-01-P02
scale 1:100, 1:200, 1:1250
size A1

ARCHITECTURE AND DESIGN
The Old Police Station 16 Bridge Lane Holmfirth HD9 7AN
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RIBA Chartered Practice

Appendix 3: Photographic Evidence

Photo 1: Modified grassland, scattered trees and artificial unvegetated unsealed surface on the north of the site.

Photo 2: Modified grassland and scattered trees on the east of the site.

Photo 3: Building 1 and modified grassland on the north of the site, viewed from the south.

Photo 4: Building 2 and developed land sealed surface, viewed from the west.

Photo 5: Interior of Building 1.

Photo 6: Interior of Building 2.

Photo 7: Missing mortar, gaps in the eaves and lifted tiles on the northern aspect of Building 1.

Photo 8: Missing mortar on the eastern aspect of Building 1.

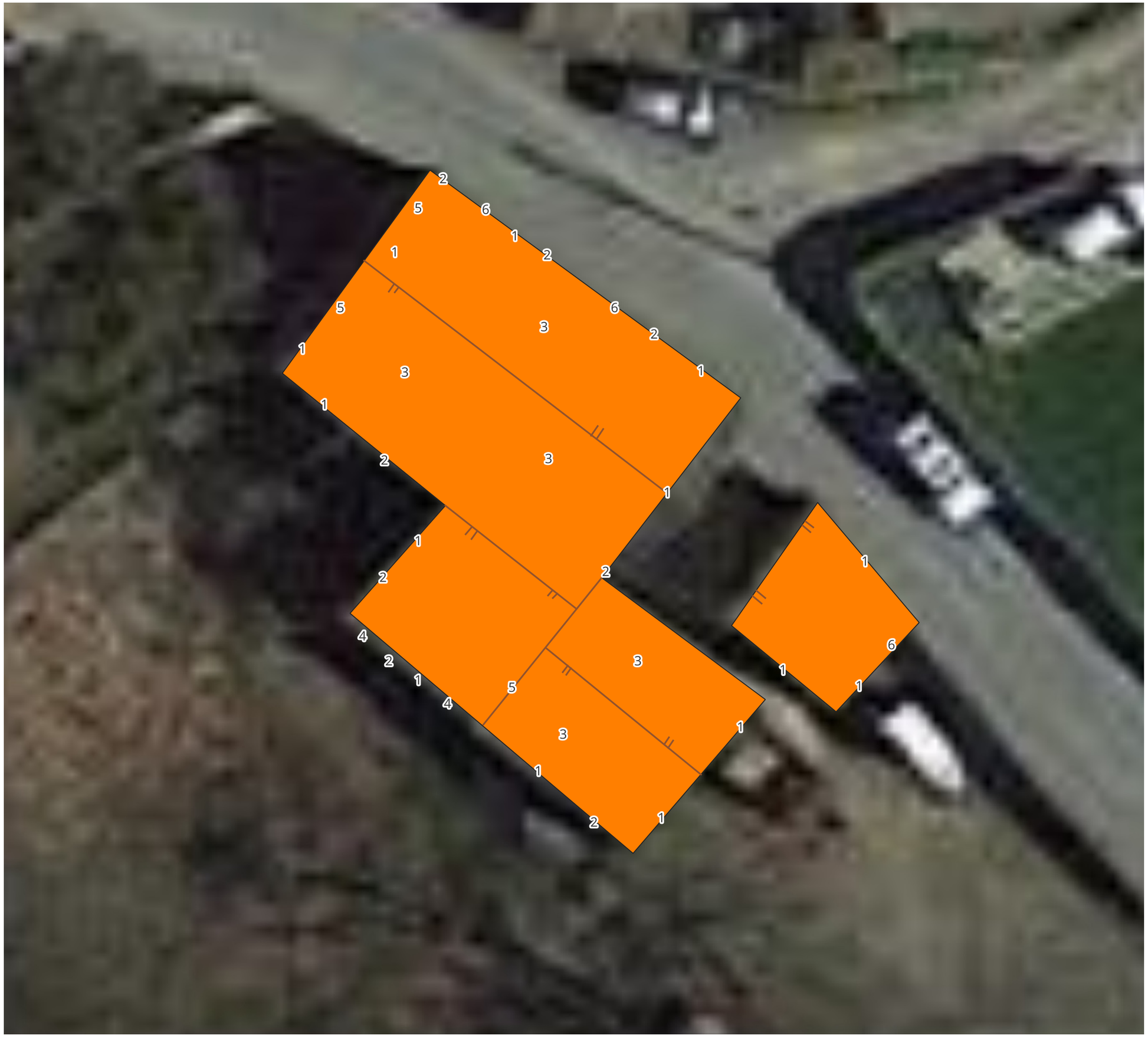
Photo 9: Missing mortar on the extension on the eastern aspect of Building 1.

Photo 10: Missing mortar, gaps in the eaves and lifted tiles of the southern aspect of Building 1.

Photo 11: Missing mortar and air vents on the western aspect of Building 1.

Photo 12: Missing mortar on the southern aspect of Building 2.

Appendix 4: Bat Roost Potential Map



Site name & address

Land at Yew Tree Lane, Huddersfield, West Yorkshire HD9 2NR

Key

Building:
Moderate Bat Roost Potential

Potential Roosting Features
1 - Missing Mortar
2 - Gap in Eave
3 - Lifted Rooftile
4 - Empty Window Frame
5 - Air Vent
6 - Missing Brick

Scale 0 2.5 5 m

Site	Client
Yew Tree Lane	ADP Architects
Project: Preliminary Ecological Appraisal	Author: JF
Plan ref: 22148/JF	Revision: 0

Appendix 5: 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.			

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.

Appendix 6: 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.

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.

Appendix 7: 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).

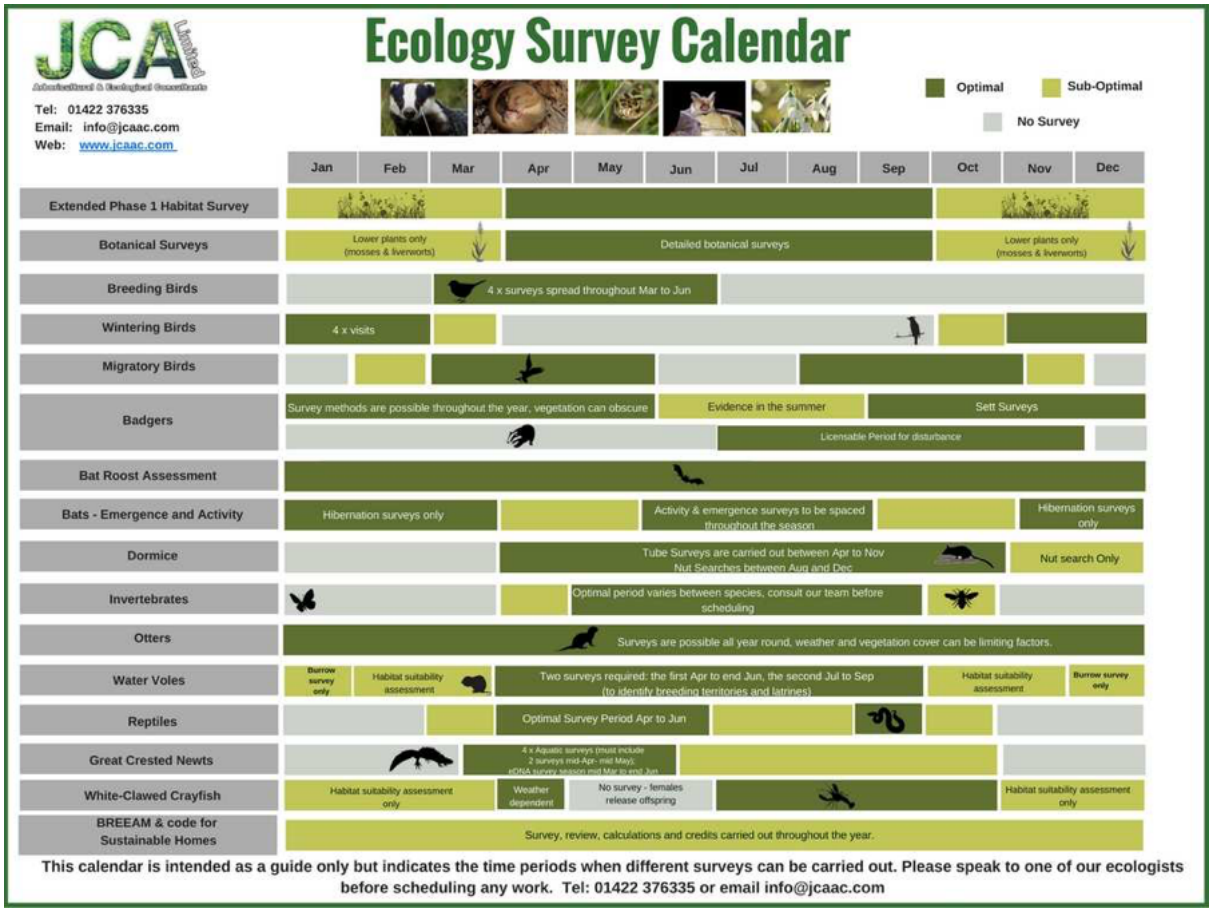
Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

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

Appendix 8: Survey Calendar

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



Appendix 9: 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.

Alex Donovan, Graduate Ecologist

MBIOL, BSc Biology (Industrial).

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology. As part of his degree programme, Alex spent an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust, assisting on various ecological surveys and projects. Alex is a registered Trainee Bird Ringer, licensed through the BTO, and has previously conducted seasonal bat emergence and transect surveys. Alex is currently working towards a level 1 bat licence, level 1 great crested newt licence, and a barn owl survey licence.

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

REDACTED

.....

James Foster *BSc (Hons)*

07/08/2024

Reviewed by

REDACTED

.....

Alex Donovan *MBIOL BSc (Hons)*

07/08/2024

Approved by

REDACTED

.....

Adam West *BSc (Hons), ACIEEM*

08/08/2024

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

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ECOLOGICAL SERVICES

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.

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- Tree Safety Surveys
- Specialist Decay Detection
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- Personal Injury and Accident Investigation
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Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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