2023/ 90766_Proposed Warehouse Extension at 232, Bradford Road, Batley, WF17 6JD:

Preliminary Ecological Assessment

JCA were instructed by JG-D on behalf of Padgett's Motorcycles to undertake a preliminary ecological assessment of the Padgett estate on Bradford Road, Batley.

Alongside the original Motorcycle Showroom, Padgett's also owns the neighbouring Warehouse to the South, the parcel of land to the North and a strip of land across Batley Beck to the East.

In what was believed to be an appropriate response, all landholdings were assessed together and a consolidated report produced.

Unfortunately the recommendations made for the whole site have created confusion for the current application 2023/90766 for the extension of the existing Warehouse.

The salient recommendations were picked out for the application site and further survey works commissioned for Bats and Water Voles but elements on other parts of the estate were left in abeyance, to be actioned when those parts of the site come forward.

The following report is the original JCA report, edited by JG-D to remove references to habitats outside the application site as agreed with Edward Cheseldine 18.10.23. Although JCA offered to re-write their report, no staff are available at present and the applicant needs to progress the scheme to qualify for funding from one of their motorcycle manufacturing partners (December deadline).

October 2023

Report amended for application 2023/90766 (JG-D)

PRELIMINARY ECOLOGICAL APPRAISAL
at
Land off Bradford Road
Batley
West Yorkshire
WF17 6JD

Client:
Padgetts Motorcycles Ltd

Client Address:
234 Bradford Road
Batley
WF17 6JD

Client Contact:
07581276792

JCA Ref:
20148 /AD

Dateof Report:
29/02/23

Report amended for application 2023/90766 (JG-D)

Quality Assurance

Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Reviewed:	
	Date	Name	Date	Name	Date	Name	Date	Name
Planning	28/02/23	James Foster	02/02/23	Amy Donaldson Eve Goodwin	01/03/23	Amy Donaldson	02/03/23 06/03/23	Eve Goodwin 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.*

Summary

JCA Limited has been commissioned by **Padgetts Motorcycles Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land off Bradford Road, Batley**. The site is located at Ordnance Survey (OS) National Grid Reference **SE 24698 23228** with nearby postcode **WF17 6JD**.

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.

Report amended for application 2023/9076 (JG-D)

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	Negligible	No designated sites within 2km of the proposed development.	No	N/A
Non-statutorily protected	Negligible	The Caulms Wood Quarry LGS is not deemed vulnerable to adverse impacts from the proposed development	No	N/A
S41 habitat	Negligible	Lowland mixed deciduous woodland is a UK Habitat of Principle Importance.	No	N/A
Protected species				
Flora (WCA Sch 8, CHSR Sch 5)	Negligible	None	No	N/A

Report amended for application 2023/0[illegible] (JG-D)

Invertebrates	Negligible	None	No	N/A
White-clawed crayfish	Negligible	None	No	N/A
Fish	Negligible	None	No	N/A
Great crested newt	Negligible	None	No	N/A
Amphibians	Moderate	Adverse indirect effects in relation to the beck on site.	No	A precautionary approach should be adopted to ensure no impact
Reptiles	Negligible	None	No	N/A
Birds	Negligible	None	No	N/A

Bats	High	Building Two and the line of trees on site are deemed to hold low bat roosting potential. The overall site has high potential for commuting and foraging bats. Any disturbance to bat or bat roost would result in a breach of legislation.	Yes – One emergence survey between May and August inclusive.	Dependent on the results of the survey. A precautionary approach to felling should be adopted and any felled trees should be left where they fall for a minimum of 24 hours to allow any bats to vacate. Artificial lighting within the Development should follow guidance from Institution of Lighting Professionals (2018).

Report amended for application 2021/90766 (JG-D)

Badgers	Negligible	None	No	N/A
Otters	Negligible	None	No	N/A
Water voles	Moderate	The beck adjacent to site and the pond near to site have potential to support water vole. The beck	Yes – two water vole surveys, the first between April-June and the second between July-September.	Dependant on the results of the survey.

JCA Ref:

		may be adversely impacted as a result of works.		
Beaver	Negligible	None	No	N/A
Other Species e.g. S41 species	Negligible	None	No	N/A

Report amended for application 2023/90766 (IG-D)

Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959)				
Potential invasive weeds	Moderate	The survey was conducted outside of optimal survey season and so the assessment of invasive flora could not be accurately conducted.	Resurvey recommended.	Dependent on the results of the survey.
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				

Report amended for application 2023/90766 (JG-L

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Report amended for application 2023/90766 (JG-D)

1. Introduction

1.1 Background

1.1.1 In January 2023, JCA Limited was instructed by **Padgetts Motorcycles Ltd** to undertake a Preliminary Ecological Appraisal (PEA) of a site located at **Land off Bradford Road**, 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 24698 23228**, with nearby postcode **WF17 6JD**. The site is bordered to the north, south and west by industrial and residential buildings and to the east by woodland.

1.2.2 The scheme involves the extension of the warehouse on site. A full scheme for the development is not available at this stage.

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 – an 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.

Report amended for application 23/90766/OUT

- 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**).

Report amended for application 2023/90766 (JG-D)

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. 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 West Yorkshire Ecology Services (WYES), the local environmental records centre for Batley, 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 Kirklees Biodiversity Action Plan (Kirklees Council, 2007) to assess national and regional habitat and species status.

2.2 Field Survey

2.2.1 A UKHab Habitat survey of the site was conducted on 02/02/23. 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 UKHab Habitat Survey (The UK Habitat Classification, Habitat Definitions Version 1.1, UKHab, 2020) and using the Minimum Mappable Units (MMU) of 25m^2 and 20m. Dominant and abundant plant species were recorded for each habitat present.

Report amended for application 2023/90758 (JG-D)

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 LBAP. 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.

Report amended for application 2023/90766 (JG-D)

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 in January 2023. This is not expected to present a significant constraint to the overall findings of the report in regards the protected or notable species the site can support. However, the assessment of invasive floral species could not be accurately conducted, the precautionary principle will therefore be applied.

2.3.3 The weather during the survey and in the days prior was clear and dry. This is not anticipated to present a constraint to the findings of the report.

2.3.4 The north-eastern section of the site is comprised entirely of dense scrub. The scrub was considerably overgrown and so had to be assessed from a distance. The precautionary principle will be applied.

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 no nationally designated sites within 2km of the site.

3.2 Non-statutory Designated Sites

3.2.1 Records received from WYES revealed one non-statutory designated sites within 2km of the site. The Caulms Wood Quarry Local Geological Site (LGS) lies 756m southeast of the site. It is designated for its Upper Carboniferous sandstone.

3.3 Section 41 of the NERC Act 2006 Priority Habitat Inventory

3.3.1 The MAGIC website revealed the following priority habitats near the site:

Report amended for application 2023/90766 (8.10.D)

• Deciduous woodland is present 100m to the east of the site.

3.4 European Protected Species (EPS) Licence Applications

3.4.1 The MAGIC website revealed two EPS licence applications within 2km of the site:

- A licence granted in September 2011 and ending in December 2012 to allow for the destruction of a resting place used by common pipistrelles. Licence reference: EPSM2011-3454.
- A licence granted in February 2019 and ending in March 2024 to allow for the destruction of a resting place used by common pipistrelles. Licence reference: 2019-38940-EPS-MIT.

3.5 Records of Protected and Notable Species

3.5.1 Flora

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

3.5.2 Invertebrates (including white-clawed crayfish)

No records of protected or notable invertebrate species were returned by WYES.

3.5.3 Fish

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

3.5.4 Amphibians

One record of great crested newt *Triturus cristatus*, a UKBAP, WYBAP and Kirklees BAP designated species, was received from WYES. The record was made in 2016 and was approximately 1179m from the site.

3.5.5 Reptiles

No records of protected or notable reptiles were returned by WYES.

3.5.6 Birds

One record of skylark *Alauda arvensis*, a UKBAP, WYBAP and Kirklees BAP designated species, was received from WYES. The record was made in 2021 and was approximately 1870m from the site.

Report amended for application 2023/90760 (JG-D)

3.5.7 Bats

The following records were received from WYES:

Table 2: Bat Records Received from WYES.

Scientific Name	Common Name	Designation	Latest Date	Number of records	Distance from Site (m)
Nyctalus noctula	Noctule bat	EPS WCA Sch 5 UKBAP WYBAP LBAP	2019	4	1587
Pipistrellus	Pipistrelle bat species	EPS WCA Sch 5	2019	1	1587
Pipistrellus pipistrellus	Common pipistrelle	EPS WCA Sch 5 WYBAP LBAP	2020	25	642
Pipistrellus pygmaeus	Soprano pipistrelle	EPS WCA Sch 5 UKBAP WYBAP LBAP	2020	3	690

Key:
EPS: European Protected Species: Species listed under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
WCA Sch 5: Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
UKBAP: United Kingdom Biodiversity Action Plan.
WYBAP: West Yorkshire Biodiversity Action Plan. LBAP:
Local Biodiversity Action Plan for Kirklees.

3.5.8 Bat Roosts

The following records were received from WYES:

Table 3: Bat Records Received from WYES.

Scientific Name	Common Name	Roost type	Date	Distance from Site (m)
Pipistrellus pipistrellus	Common pipistrelle	Maternity	2013	1592

Report amended for application 2023/90766 (JG-D)

Pipistrellus pipistrellus	Common pipistrelle	Not recorded	2018	1726
Pipistrellus pipistrellus	Common pipistrelle	Not recorded	2018	1724
Pipistrellus pipistrellus	Common pipistrelle	Transitional	2012	1158
Pipistrellus pipistrellus	Common pipistrelle	Transitional	2012	1163
Pipistrellus pipistrellus	Common pipistrelle	Transitional	2012	1172
Pipistrellus pipistrellus	Common pipistrelle	Transitional	2012	1181
Pipistrellus pygmaeus	Soprano pipistrelle	Transitional	2012	1174
Pipistrellus pygmaeus	Soprano pipistrelle	Transitional	2012	1171

3.5.9 Badgers

There are no badger records within 2km of site and the nearest sett is over 2km from site. The site falls within an area of increased probability of badger activity.

3.5.10 Otters

No records of otters were returned by WYES.

3.5.11 Water Voles

One record of water vole *Arvicola terrestris*, a UKBAP, WYBAP and Kirklees BAP designated species, was received from WYES. The record was made in 2020 and was approximately 1379m from the site.

3.5.12 Beaver

No records of beaver were returned by WYES.

3.5.13 Other Notable Species

No records of any other protected or notable species were returned by WYES.

3.5.14 Invasive Species

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One record of montbretia *Crocosmia x crocosmiiflora*, a Schedule 9 (WCA, as amended) designated species, was returned from WYES. The record was made in 2020 and was 1125m from the site.

One record of Himalayan balsam *Impatiens glandulifera*, a Schedule 9 (WCA, as amended) designated species, was returned from WYES. The record was made in 2013 and was 590m from the site.

4. Field Survey Results

4.1 Habitats

4.1.4 Other rivers and streams – r2b

Freshwater – heavily modified (40)

The Batley beck runs through the site from north to south. The beck is connected to the River Calder and is known to be heavily hydro-morphically modified (Environment Agency, 2021). It is slow-paced and it bordered to the west by a tall brick wall.

4.1.5 Urban trees – u1

Urban trees are scattered throughout the site, predominately along the beck. Species identified include sycamore and ash.

4.1.6 Developed land; sealed surface – u1b

Scattered scrub (10), scattered grass (189)

The south-western section of the site is comprised of developed land; sealed surface in the form of aggregate and concrete hardstanding. The land is in poor condition with scattered scrub and grasses and that are beginning to recolonise the habitat. Species identified include bramble, buddleia, ash, dandelion, nettle, mugwort, spear thistle, cocksfoot, perennial ryegrass, sycamore, star moss *Tortula ruralis*, hedge bindweed *Calystegia sepium*, narrow leaved ragwort *Senecio inaequidens*, common ragwort, white clover *Trifolium repens*, cleavers and red valerian *Centranthus ruber*.

4.1.7 Buildings – u1b5

Report amended for application 2023/90760 (JG-D)

There are two buildings on site (**Appendix 1**: UKHab Habitat Map). **Table 4** below details building descriptions and potential roosting features (PRFs) identified during the survey (**Appendix 2**: Potential Roosting Features Map).

Table 4: Descriptions of the buildings on site.

Building Number	Location and Description	Potential Roosting Features (PRFs)
1 – Motorbike dealership	Building One lies to the west of the site.	No obvious PRFs were identified during the survey.
	It is built with a combination of brick and metal cladding. The building has a pitched bitumen roofing.	
2 - Warehouse	Building Two lies to the southwest of the site, to the south of Building One. The building is built with a combination of brick and corrugated metal. It has a pitched bitumen roofing.	• Gaps were identified along the roller doors on the northern and south aspect of the building, which could permit access into the interior (**Appendix 3, Photo 16**). • Gaps under the metal cladding, in which bats may roost, were present around all aspects of the building (**Appendix 3, Photo 14**). • There were numerous areas of missing mortar around the building. Bats could roost within the missing mortar, or the missing mortar could provide access into the cavity wall (**Appendix 3, Photo 15**).

4.2 Protected and Notable Species

4.2.1 Flora

A range of generalist flora was identified on site, however there were no protected or notable species recorded. Flora will, therefore, not be mentioned further in this report.

4.2.2 Invertebrates (including white-clawed crayfish)

The early successional plant communities identified within the developed land; sealed surface could also provide favourable habitat to invertebrates such as ground nesting bees and wasps.

4.2.3 Fish

Whilst the beck running through site contains suitable habitat for fish, the beck is heavily modified and contaminated. It is therefore unlikely that protected or

Report amended for application 2022/90766 (JG-D)

notable fish species are utilising the beck. Fish will, therefore, not be mentioned further in this report.

4.2.4 Amphibians

The beck, scrub and rubble piles identified on site provide suitable habitat for amphibians, which could be found utilising the site for foraging, commuting or breeding purposes. The beck on site was afforded a Habitat Suitability Index (HSI) score of 0.45, deemed to hold a poor likelihood of Great Crested Newts.

4.2.5 Reptiles

The scrub and rubble piles identified on site provide ideal habitat for a range of reptiles. As such, reptiles could be utilising the site for foraging, commuting or breeding purposes. The scrub on site had been to be assessed from a distance, and so evidence of reptiles on site cannot be ruled out.

4.2.6 Birds

The lines of trees, urban trees and scrub on site provide excellent opportunities for nesting birds. The beck and early successional habitat is also a benefit to commuting and foraging birds. A number of birds' nests were identified within the woodland adjacent to site, and generalist birds were identified to be utilising the scrub, beck and early successional habitat for foraging and commuting purposes during the survey. Species identified include wagtail *Motacilla* sp., long-tailed tit *Aegithalos caudatus*, robin *Erithacus rubecula* and wren *Troglodytes troglodytes.*

4.2.7 Bats

Building Two was deemed to hold low potential to support roosting bats due to the PRFs identified during the survey. No obvious PRFs were identified within the line of trees or urban trees on site, however the line of trees was considerably overgrown and contained dense coverings of English ivy. These features could obscure PRFs such as cracks or crevices, and as such, the line of trees has been afforded low bat roosting potential. The site also contains linear commuting features such as the beck and considerable amounts of favourable foraging habitat including scrub.

4.2.8 Badgers

The site falls within the increased probability of badger activity. As such, badgers could be utilising the scrub on site and the woodland adjacent to site for foraging and commuting purposes.

Report amended for application 2023/90166 (JG-D)

4.2.9 Otters

The beck on site is not deemed suitable to support otters, due to the artificial morphology of the system and the high level of pollution. Otters will, therefore, not be mentioned further in this report.

4.2.10 Water Voles

There is potential for water voles to be utilising the beck on site, as there is sufficient bankside habitat to support foraging and commuting behaviour. Potential water vole burrows were identified along the bank during the survey (**Appendix 3, Photo 13**)

4.2.11 Beaver

The beck on site is not deemed suitable to support beavers, and it is highly unlikely that beavers are present within the vicinity of the site under their recorded distribution. Beavers will, therefore, not be mentioned further in this report.

4.2.12 Other Notable Species

Non identified.

4.2.13 Invasive Species

No invasive species were identified on site, however the timing of the survey was considered a constraint to the identification of invasive flora. There are records of invasive floral species within 600m of the site, and invasive weeds such as Himalayan Balsam spread rapidly through waterways. It is therefore highly likely that invasive species are present on site, and such weeds are likely to be concentrated around the beck.

5. Assessment

5.1 Designated Sites

5.1.1 Statutory designated sites

There are no statutory designated sites within 2km of the proposed development.

5.1.2 Non-statutory designated sites

Report amended for application 2023/90766 (JG-D)

The Caulms Wood Quarry LGS is within 1km of the proposed development. However, due to the nature of the LGS and the scale of the proposed development, no adverse impacts are expected to occur.

5.1.3 S41 NERC Priority Habitat Inventory

The land 100m to the east of the site is designated as lowland mixed deciduous woodland.

5.2 Habitats

5.2.1 The most valuable habitats for biodiversity within the development site boundary are the sealed surface and Building Two. The proposed works is expected see the removal of these habitats.

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

5.1.5 Bats

Records from WYES show four species of bat and nine roosts within 2km of the site, with the closest roost being over 1km from the site. The site is also within the Kirklees Bat Alert Zone. Due to the proximity of nearby records and the PRFs identified during the survey, Building Two and the line of trees on site are deemed to hold low bat roosting potential.

Overall, the site is deemed to holds high potential to support foraging and commuting bats as discussed in **Section 4.2.6**. Further recommendations are therefore provided in **Section 6.2.5**.

5.1.6 Badgers

As the site contains habitat suitable for foraging and commuting badgers, further recommendations regarding badgers are provided in **Section 6.1.2 and Section 6.2.6**.

5.1.7 Water Voles

The beck on site was deemed to hold potential for water voles, and potential water vole burrows were identified during the survey. The beck is expected to

Report amended for application 2023/90766 (JG 20)

be adversely impacted by the proposed works, and water voles could be killed or injured should they make their way onsite site during works. Further recommendations are outlined in **Section 6.2.7**.

5.1.9 Other Notable Species

There are records of invasive floral species within 600m of the site, and invasive weeds such as Himalayan Balsam spread rapidly through waterways. It is therefore highly likely that invasive species are present on site, and such weeds are likely to be concentrated around the beck. Further recommendations are therefore provided in **Section 6.2.9**.

6. Recommendations

6.1 Habitats

6.1.1 In the absence of any mitigation measures, the proposed development would be anticipated to have significant adverse impacts at the Local level. However, with the implementation of the mitigation and precautionary measures as specified above, the proposed development is not anticipated to result in any significant adverse residual effects to important ecological features.

6.1.2 A **Construction Environmental Management Plan (CEMP)** should be produced which outlines mitigation measures in relation any retained habitats of high ecological value including the beck on site. This is to prevent any indirect effects such as pollution run-off and windblown debris.

6.1.3 A **Biodiversity Enhancement Plan (BEP)** should be produced which outlines how to minimise the impact to the biodiversity on site and enhance the site for wildlife post development. This includes implementation of faunal boxes such as bird boxes, bat bricks, bat boxes, insect towers and hedgehog houses.

Report amendment application 2023/90766 (JGD)

6.2 Protected and Notable Species

6.2.5 Bats: Building Two requires **one emergence survey** to ascertain the presence/ absence of roosting bats. The survey must take place between May-September inclusive and should be augmented with night vision aids (NVAs). Upon completion of the survey if any bats are found to emerge

or re-enter the building, the roost type will be able to be then accurately characterised. If bats are then confirmed to be roosting onsite, a Bat Mitigation Licence may be applied for from Natural England, and a mitigation plan devised so the development causes as little impact on the local bat populations as possible.

All lighting must consider wildlife and be in accordance with the ILP Guidance GN01 and GN09 (2018). 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.

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.

Report intended for application 2023/90766 (JCD)

6.2.7 Water voles: Two water vole surveys are required to ascertain the presence/absence of water vole on site. The first survey is to be undertaken between April-June and the second between JulySeptember.

6.2.9 Invasive Species: The timing of the survey was considered a constraint to the identification of invasive flora on site, as many plant species have a seasonal expression in spring and summer only. Therefore, it is highly

recommended that a re-survey of the site is undertaken between April and October, when the vegetation is more readily identifiable.

Report amended for application 2023/90766 (JG-D)

7. References

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

- Non-native Bumblebee specie
- Deer
- Freshwater fish
- Invertebrates
- Mink, coypu, muskrat and grey squirrel
- Plants

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White-clawed Crayfish:

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Appendices

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Appendix 1: UKHab Habitat Map

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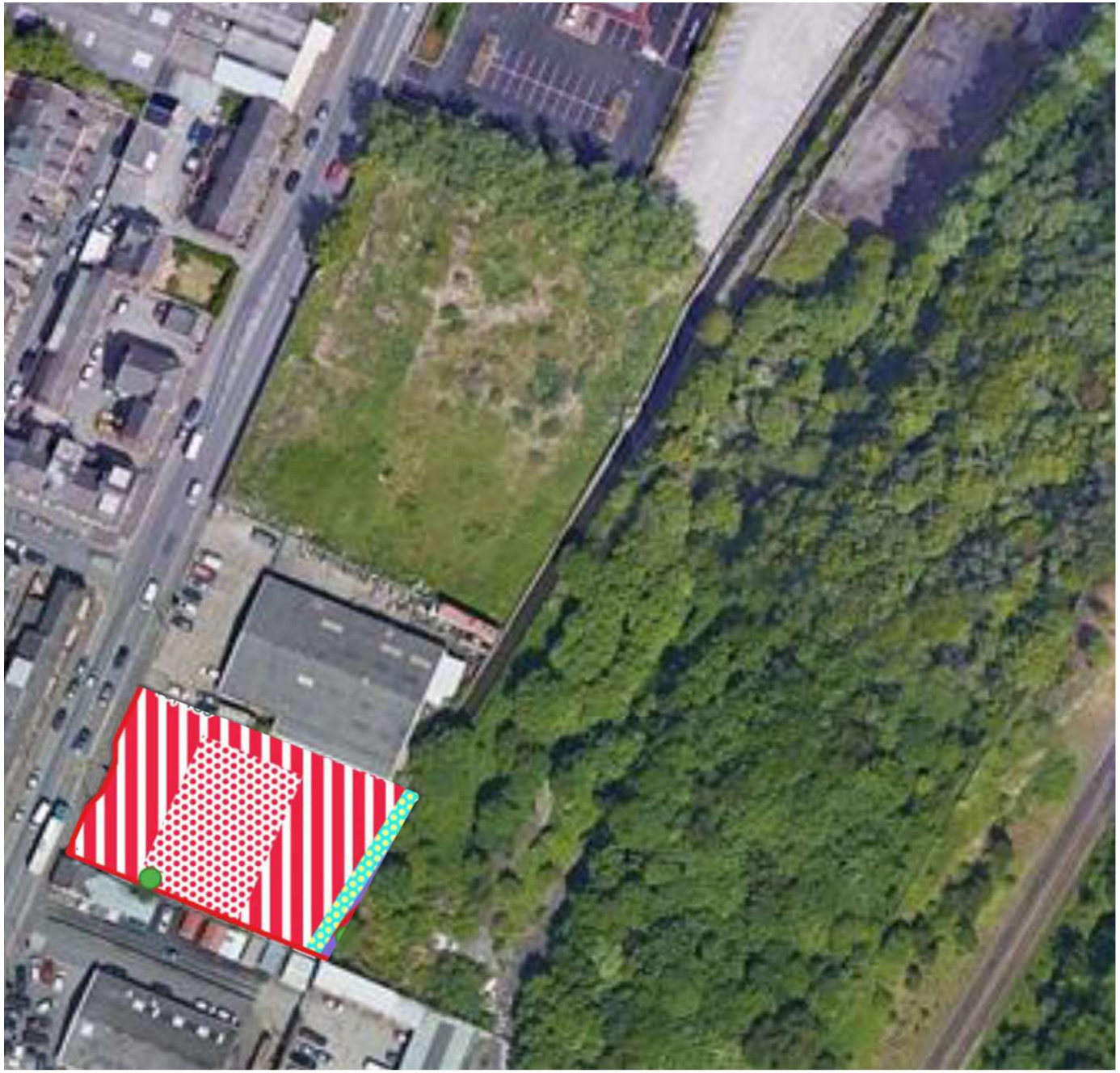

UKHab Habitat Map: Land off Bradford Road

- Red Line Boundary
- Lowland mixed deciduous woodland - w1f
  Bare ground (73)
- Mixed scrub - h3h
- Other rivers and streams - r2b
  Freshwater - heavily modified (40)
- Developed land; sealed surface - u1b
  Scattered scrub (10)
  Scattered grass (189)
- Buildings - u1b5
- Line of trees - w1g6
- Urban trees - u1
- Target Notes

0 10 20 m

N
W E
S

Appendix 2: Potential Roosting Features Map

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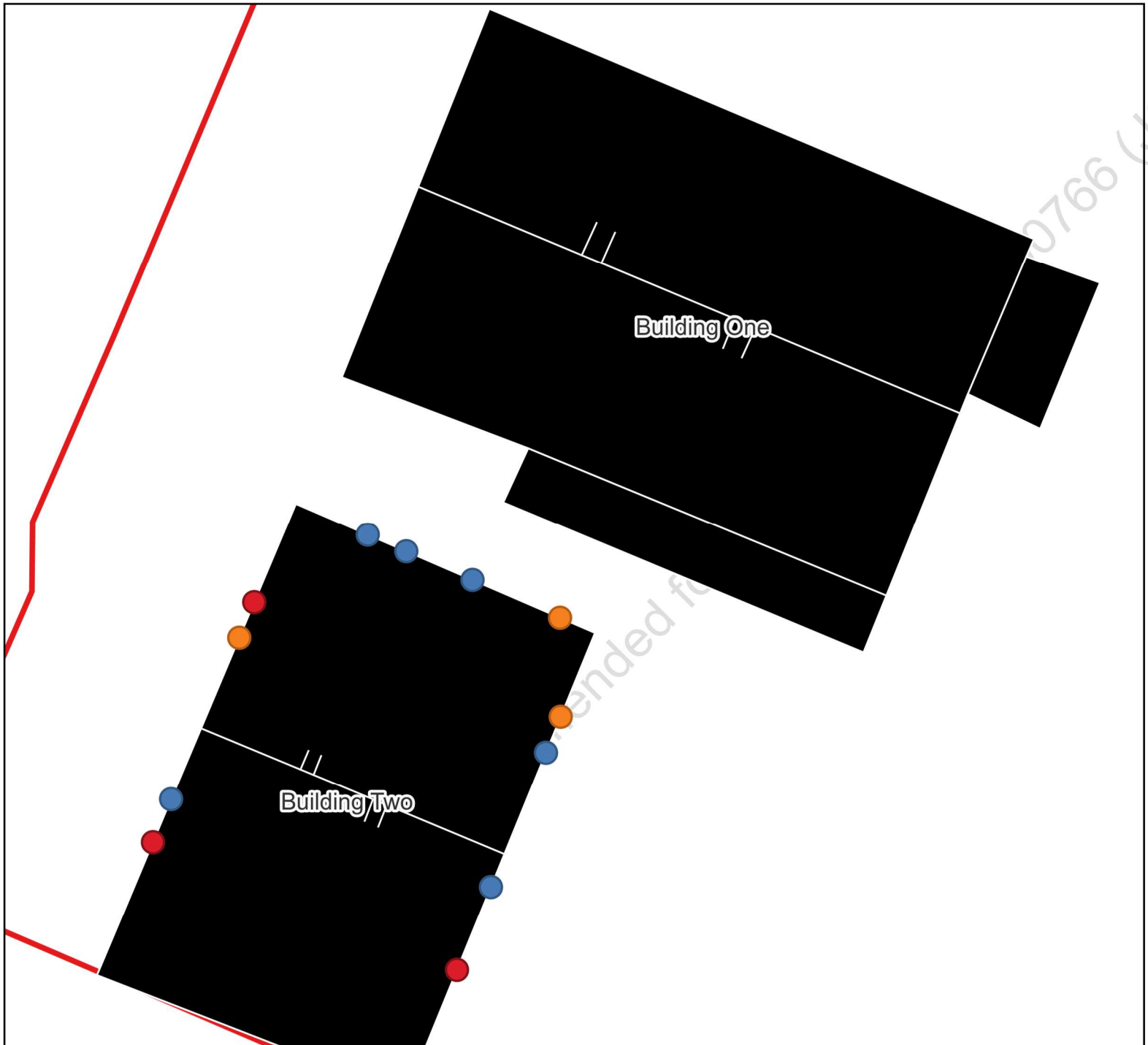

Potential Roosting Features Map: Land off Bradford Road

Red Line Boundary
Surveyed buildings

Potential Roosting Features:

- Gaps under the metal cladding
- Gap under the roller door
- Missing mortar

0 5 10 m

N

Appendix 3: Photographic Evidence

Photo 1: Building One, the motorbike dealership. Photo 2: Building Two, the warehouse.





Photo 3: The areas of developed land; sealed surface to the southwest of the site, with site. scattered scrub and grass.

Photo 4: The Bradford Beck running through the





Photo 13: The potential water vole burrow during the survey.

Photo 14: The gap under the cladding on the identified northern aspect of Building Two.

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Photo 14: The missing mortar identified on the western aspect of Building Two.



Photo 15: The gap under the roller door on the western aspect of Building Two.

Appendix 4: Bat Survey Calendar

Figure 1: Survey timings calendar (taken from BCT: Bat surveys for professional Ecologists, Good Practice Guidelines; 3rd Edition).

Survey type	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Preliminary ecological appraisal - fieldwork												
Preliminary roost assessment – structures[a]												
Emergence/re-entry survey for maternity or summer roosts[b]												
Emergence/re-entry[c] survey for transitional roosts[b]												
Emergence survey for mating roosts[b]												
Hibernation survey – structures[a]												
Preliminary ground level roost assessment - trees[d]												
Potential roost feature (PRF) inspection survey - trees												
Ground level bat activity survey – transects and automated/static												
Pre-, during and post-hibernation – automated/static bat activity survey												
Swarming survey												
Back-tracking survey												
Trapping survey[e]												
Radio tagging and tracking survey[e]												

= 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 surveys are not acceptable in Scotland.

[a] Not including trees

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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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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

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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

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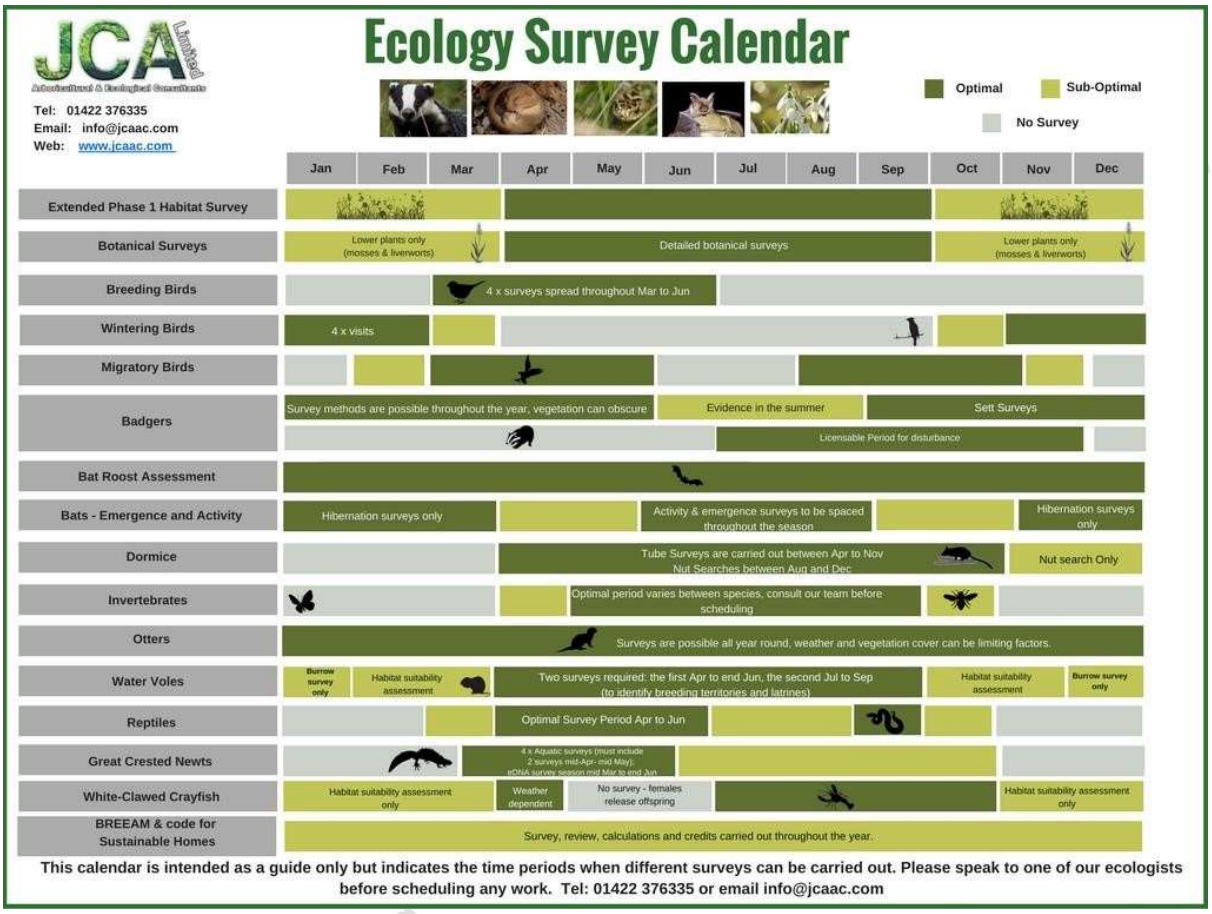
7: Survey Calendar

Figure 2: Survey calendar for protected species and habitat surveys.



Report amended

Appendix 8: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management.

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, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Amy Donaldson, Graduate Ecologist

Bsc (Hons) Zoology, Qualifying CIEEM Member

Amy joined JCA in 2022 after graduating with a First Class Honours from the University of Leeds. Amy volunteered for numerous years with the Northumberland wildlife trust to develop a variety of field surveying skills. In 2020 Amy began bat surveying, where she gained practical knowledge and experience in the field. Amy is looking forward to developing her report writing and data analysis skills with JCA, and is working towards her Level 1 bat survey class licence.

Eve Goodwin, Graduate Ecologist

BSc (Hons) Plant Biology, Qualifying CIEEM Member

Eve gained her Royal Society of Biology accredited undergraduate degree in 2019 from Aberystwyth University in Plant Biology. She has good plant identification skills which were developed through her academic studies and field work. She has since worked as a CAD technician and has joined JCA in 2022 where she hopes to develop her field skills further.

James Foster, Graduate 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.

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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

....

Amy Donaldson 29/02/23

Reviewed by

.....

02/03/2023

Approved by

....

Adam West *ACIEEM* 06/03/2023

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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.

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

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

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- Pest and Disease Surveys
- Tree Health Checks
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