



Ecological Appraisal

Report prepared for: Mrs J Leggatt

Land at Churchfields

Upper South Wraxall

Bradford-on-Avon

Wiltshire

BA15 2SB

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1 INTRODUCTION

- 1.1 This report provides the results of an updating Ecological Appraisal and automated acoustic bat surveys undertaken at land at Churchfields, Upper South Wraxall, Bradford-on-Avon, Wiltshire BA15 2SB (central Ordnance Survey (OS) Reference ST 83362 64675).
- 1.2 The proposals are described as the erection of a residential dwelling within the survey boundary. A planning application will be submitted to Wiltshire Council in due course.
- 1.3 A PEA was previously undertaken on the site during May 2022 by Cotswold Environmental Ltd and a subsequent PEA Report prepared; document reference: CE00840, dated November 2022. The initial report provided a baseline assessment of the ecological features and potential constraints. As part of the appraisal, several phase two surveys were recommended to further assess species presence and habitat use on the site for bats, great crested newt, and reptiles. A summary of 2022 survey effort is provided within this report.
- 1.4 The findings of these surveys were integral in informing the ecological baseline and in guiding subsequent mitigation and enhancement recommendations. This updated report seeks to review these initial findings in combination with the results from a recent site walkover to determine any further ecological considerations.
- 1.5 The findings included in this report are based on a survey undertaken during April 2025 by Cotswold Environmental Ltd. The purpose of the survey was to undertake an updating appraisal of the site for its potential ecological value to notable and protected wildlife, and to look for evidence of such species. The survey results provide information to determine the likely ecological impact the proposed development will have on wildlife species, and to inform the level of further survey effort and mitigation required to comply with relevant nature conservation policies and legislation. The evaluation and findings in this report can be used by Wiltshire Council in their view of a planning application. Survey results detailed within this report should be considered valid for a period of 18 months from the survey date.
- 1.6 The site is located within a semi-rural setting at the south-eastern fringe of Upper South Wraxall, Wiltshire, approximately 3.7 km north-east of Bradford-on-Avon town centre. The site location is shown in Fig. 1.

- 1.7 All survey and assessment work was completed in accordance with official assessment guidelines¹ and largely followed that recommended by the Chartered Institute for Ecology and Environmental Management (CIEEM)² and follows the British Standard Code of Practice³.

Survey objectives

- To determine suitability for protected species
- Ascertain evidence of protected species
- Determine potential ecological impacts the proposed development will have on protected species.
- Inform the level of further survey effort that is required.

2 METHODOLOGY

Desk Study

- 2.1 A records search was undertaken using freely available desktop resources such as the Multi-Agency Geographic Information for the Countryside⁴ (MAGIC) website. MAGIC was used to search for records of designated sites, habitats and granted European Protected Species Licences (EPSLs) within a 2km radius. Google Earth⁵ was also used to study the nearby landscape.

Field Survey

- 2.2 Ecological consultant Jason Skinner (NE Class 2 Bat Survey licence 2020-50774-CLS-CLS) carried out a field visit on Tuesday 8th April 2025.

Relevant surveyor experience

- 2.3 Jason Skinner has nine years professional ecological experience, primarily involved with bats and reptiles through consultancy and assisting on research projects. Experienced with small-scale and large-scale development projects and involvement with the management and supervision of multiple bat mitigation licences. Co-author of peer-reviewed research papers on reptiles and amphibians. Member, BBCARG and Wiltshire Bat Group.
- 2.4 The field visit involved a walkover using visual encounter survey techniques. The dominant vegetation structure was assessed, allowing habitats on site to be valued for their ecological importance to protected wildlife. Binoculars were also used to scan for features likely to support protected species.

¹ Collins J (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edn. Bat Conservation Trust, London.

² CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.

³ British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

⁴ Multi-Agency Geographical Information for the Countryside (MAGIC). Crown Copyright and database rights [2025]. Ordnance Survey 100022861. Available at: <http://www.magic.gov.uk/>

⁵ https://www.google.co.uk/intl/en_uk/earth/

All protected species were considered during the assessment and all wildlife species were recorded. The work was completed largely following methodologies set out by the Chartered Institute for Ecology and Environmental Management (CIEEM) and British Standard Code of Practice.

- 2.5 Habitats were classified using the UK Habitat Classification Version 2.0 (UKHab V2)⁶, which provides a standardised framework for describing habitat types in the UK.

Species

- 2.6 All protected species were considered during the survey. Only those considered likely to utilise the site are mentioned in this report.

Bats

- 2.7 Survey effort was completed in line with official assessment guidelines⁷ and largely followed that recommended by the Chartered Institute for Ecology and Environmental Management (CIEEM)⁸ and British Standard Code of Practice⁹. The assessment followed the standard methodology. The site was searched using visual encounter survey techniques. Potential bat movement corridors and movement barriers were assessed and noted. During the site visit, where possible, all suitable areas were examined for evidence of bats.

Static Monitoring

- 2.8 Static monitoring was undertaken using a Wildlife Acoustics SMBAT Mini automated logging device. Due to the small size and nature of habitats at the site it was considered the deployment of a static detector would provide the most appropriate means of survey (see limitations). Therefore, a single static detector was deployed. The device was positioned along a feature considered to be of value to bats for five consecutive nights per season (Spring, Summer, Autumn) during suitable weather conditions (little no rain/wind and temperatures above 10°C); the conditions over each of the survey period were however largely representative for the timing of the survey.. The detector was programmed to activate 30 minutes before dusk and record continuously until 30 minutes following sunrise.
- 2.9 Data was analysed using the Kaleidoscope software package (Wildlife Acoustics Inc.), with each sound file counted as a single bat registration. Results were used to determine the relative importance of habitats onsite to local bat populations based on:
- a) diversity of bat species which use the surveyed areas of the site and its surroundings.
 - b) frequency of that usage (i.e. each night, occasional usage, very occasional usage).

⁶ UKHab Ltd (2023). UK Habitat Classification Version 2.0. Available at: <https://ukhab.org/>

⁷ Collins J (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th edn. Bat Conservation Trust, London.

⁸ CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.

⁹ British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

Badger

2.10 All habitats within the site boundary were inspected for badger *Meles meles* activity. Whilst on site, the search included evidence of:

- Scratching posts
- Faeces
- Latrines
- Guard-hairs
- Paw prints
- Trackways

Birds

2.11 The survey also included an internal and external inspection of the surveyed buildings for evidence of common nesting birds as well as notable and protected species. Inside the buildings, artificial light was used to search for birds, dead birds, dead chicks, nesting material and eggs.

2.12 All accessible elements of the surveyed buildings containing nesting potential were checked to see if the development would have any adverse effects on nesting birds. The active nests of all wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). An active nest is one that is being built, containing eggs or chicks, or on which fledged chicks are still dependent. Birds within Schedule 1, such as barn owl *Tyto alba*, are also protected from disturbance during the nesting period.

2.13 The presence of notable and protected bird species and any signs indicative of their past and present use was taken into consideration during the inspection of the buildings. Likely perches and nesting locations were checked, and all ledges and cavities were examined for nesting debris where accessible.

Dormouse

2.14 Hedgerows, scrub and treelines within and bordering the surveyed site were assessed for their suitability to support breeding populations of hazel dormice *Muscardinus avellanarius*, as well as suitability to provide connectivity to nearby suitable breeding habitats.

Reptiles and Amphibians

2.15 Habitats were assessed for their potential to support reptiles and amphibians, including great crested newt *Triturus cristatus* (GCN). Waterbodies typical of those utilised for breeding and foraging activity, and terrestrial refugia suited to sheltering and basking such as waste heaps and plastic/metal/timber sheeting were noted if present (see limitations). In addition, any dense vegetation including tall ruderal and scrub that is connected to hedgerows and linear tree features was inspected during the assessment.

Limitations

- 2.16 The absence of species does not preclude its presence. Wildlife can be cryptic, and some species are known to be transient and occupy new habitats on a regular basis.
- 2.17 Six ponds were located within a 500 m radius of the site. Access to these waterbodies was not obtained for Habitat Suitability Index (HSI).
- 2.18 Bat droppings deposited in or around the exterior degrade quickly due to weather. The presence of bats or their roost must not be disregarded in the absence of droppings.
- 2.19 Many bat species in the UK are crevice-dwelling bats and as such, are difficult to find during PRAs.
- 2.20 For Health & Safety purposes the roofs of the buildings were assessed from ground level.
- 2.21 Local biological records were not re-obtained for the 2025 updating survey. Comprehensive data covering a 2 km radius were previously acquired in 2022 and, when considered alongside extensive Phase 2 surveys undertaken during the same year, it was not considered proportionate or necessary to re-purchase records for the current assessment. Given the lack of substantive habitat change since 2022 and the site's continued low ecological value, reliance on existing records remains proportionate and consistent with the CIEEM guidance on proportionality and use of existing data.

3 RESULTS

Desk Study

Summary of Previous Survey Effort

- 3.1 Detailed Phase 2 surveys were undertaken in 2022 to establish the ecological baseline of the site, focusing on reptiles, bats, and great crested newts.
 - **Reptile Presence/Absence Survey:** Artificial refugia were deployed and monitored over a series of visits to determine the presence of reptiles. A single juvenile slow worm (*Anguis fragilis*) was recorded, indicating a low-level presence on-site.
 - **eDNA Analysis for Great Crested Newts:** Environmental DNA sampling was conducted on the onsite waterbody to assess the potential presence of great crested newts *Triturus cristatus*. Laboratory analysis returned a negative result, confirming the species was not present at the time of sampling.
 - **Bat Activity Survey:** A static bat detector was deployed between June and October 2022 to record nocturnal bat activity. Five bat species were detected, with activity dominated by common pipistrelle *Pipistrellus pipistrellus*. No Annex II species associated with the Bath and Bradford-on-Avon Bats SAC were recorded.

Designated sites

- 3.2 According to the MAGIC website, the site lies within the Bristol and Bath Greenbelt, although no further statutory or non-statutory designated sites occur within a 2 km radius of the survey site.

Bath and Bradford-on-Avon Bats SAC

- 3.3 The internationally important designation of Bath and Bradford-on-Avon Bats SAC is located approximately 3.7 km north of the site. This area was originally designated under the European Union's Habitats Directive (92/43/EEC) and is comprised of a network of significant underground sites that fall under Wiltshire and Bath and North East Somerset administration, covering four Sites of Special Scientific Interest (SSSIs), namely Box Mine, Combe Down and Bathampton Down Mines, Winsley Mines and Brown's Folly. Together these sites constitute a substantial area of underground habitat in the south-west of England, comprised of limestone mines and extensive cave networks which are used by bats as breeding, hibernation and swarming sites. The habitats that surround these sites are equally vital to support the bat populations that are utilising the designated SACs, such as the woodland and river/canal systems which are used by bats for foraging and commuting. Species known to be using these sites include greater horseshoe and lesser horseshoe bats and the rare Bechstein's bat. All three species are afforded extra protection by being listed on Annex II of the EC Habitats Directive and the SAC is associated with 15% of the UK's greater horseshoe population.

Granted European Protected Species Licences (EPSL) within a 2km radius

- 3.4 According to the Magic website, four EPS licences have been granted within a 2 km radius of the site. These are shown below in Table 1. It was also noted during the desk study that no GCN Class Survey Licence returns have been submitted, although a single positive pond survey undertaken between 2017 and 2019 was identified at a site located 1.4 km to the north-east.

Table 1: Granted EPSLs within 2km of survey site

Species	Distance	Direction	Year Granted
BLE	273 m	South-West	2009
BLE, C.pip, LHS	332 m	South-West	2014
C.pip	646 m	South-West	2018
C.pip	1.3 km	South	2020

C.pip = Pipistrellus pipistrellus, BLE = Plecotus auritus, LHS = Rhinolophus hipposideros

Field Survey

- 3.25 Weather conditions during the daytime assessment are shown in the below table. Temperatures were recorded onsite using an Elitech RC-51 Temperature Logger.

Table 2: Weather conditions during Preliminary Ecological Appraisal

Date	Start	Finish	Temp °C	Wind	Cloud %	Rain	Notes
8/04/2025	10:30	11:15	13	Calm	70	Dry	N/A

Surrounding Habitats

- 3.26 The site is located within a semi-rural village setting at the edge of a lightly developed residential area and is surrounded by gardens of neighbouring properties to the west and an area of hawthorn *Crataegus monogyna* scrub on neighbouring land to the east of the site. This area of scrub includes at least two mature ash *Fraxinus excelsior* trees and a row of mature crack willows *Salix fragilis*. To the immediate northern boundary of the site lies a large 4.5 hectare field of pasture, beyond which is further grazing and arable farmland. The wider environment is poorly wooded with no substantial blocks of woodland occurring within a 2 km radius; however, several small isolated parcels of deciduous woodland (Priority Habitat) are present within the surrounding environment, most notably two blocks of ancient woodland which are located 1.6 km to the north-west and 1.7 km to the south-west of the site and a 5.2 hectare area of woodpasture and parkland (BAP Priority Habitat) which can be found 389 m to the south-west. Other notable habitats within a 2km radius include a larger area of Wood Pasture and Parkland located 1.5 km to the north-east, several small parcels of traditional orchard (Priority Habitat) and multiple small watercourses and ponds.
- 3.27 The broader 2 km study area was assessed for other notable or Priority Habitats, but no further significant habitats were identified within this range. Overall, the surrounding landscape is largely agricultural. This landscape is interspersed with ecological corridors and areas of habitat that will likely provide important resources for local wildlife.

Local waterbodies

- 3.28 A review of the MAGIC website identified one pond within a 250 m radius of the site boundary, with a further five ponds located within a 500 m radius. See Table 3 below for details.

Table 3: Pond Locations within a 500 m radius

Pond	Distance from Site (Metres)	Direction	Grid Reference	Notes
1	18	North-East	ST 83387 64698	Located within small woodland block at arable edge; connected to site; not accessed due to dense vegetation; status unknown, though found largely defunct and without water during 2022 survey effort.
2	350	South-East	ST 83192 64370	Not accessed – located on private land (see limitations)

3	380	West	ST 83006 64817	Not accessed – located on private land (see limitations)
4	380	South	ST 83211 64330	Not accessed – located on private land (see limitations)
5	425	North-West	ST 83051 64992	Not accessed – located on private land (see limitations)
6	460	North	ST 83323 65140	Not accessed – located on private land (see limitations)

Onsite Habitats

- 3.29 The site is accessed via an entrance located at the southern site boundary and features a former small sewage plant and a water filled pit. The entire boundary of the site is defined by chain-link fencing with HERAS fencing securing the roadside entrance. The site has been largely cleared of vegetation since the last survey, with arboricultural arisings placed at the northern extent of the site. No priority habitats exist within the survey boundary. The habitat types recorded at the site are described under the sub-headings below, with the location and extent of each illustrated in the Habitat Map in Figure 2.

u1b - Developed land. Sealed surface

- 3.30 A rectangular area of concrete hardstanding exists in the centre of the site, and remains of the former small sewage plant are located at the northern extent of the site within a depression that features banked sides and includes stone and concrete-built walls with metal railings and two grilles covering subterranean pits. The remnants of some stone-built walls appear to be dry-built with no mortar and feature numerous gaps and crevices.

u1f – Sparsely vegetated urban land

- 3.31 The majority of the site has been cleared of vegetation. Short, patchy vegetation has colonised areas of the bare ground that now dominates the site. This includes nettle *Urtica dioica*, cow parsnip *Heraclium sphondylium* and creeping thistle *Cirsium arvense*.

g4 – Modified grassland

- 3.32 A patch of grass is located at the western extent of the plot near the fence of the adjacent neighbouring property. The sward height is approximately 0.8 cm tall with a species composition that includes cocks foot *Dactylis glomerata*, blue grass *Poa pratensis* and false oat-grass *Arrhenatherum elatius*. An abundance of creeping thistle and stinging nettle has colonised the previously bare areas of ground amongst the sward, indicative of a high level of disturbance.

Other habitat (Target notes)

- 3.33 A waterbody covered by a metal grille was recorded within the remains of the former sewage plant during the 2022 survey. Its current ability to hold water could not be confirmed during the present assessment, as the feature was obscured by arboricultural arisings. Its location is shown in Appendix B, Figure 2, Target Note 1.

Notable flora

- 3.34 No notable flora was discovered growing within the site and no plant species that are listed on Schedule 8 or 9 of the Wildlife and Countryside Act 1981 (as amended) were identified.

Species

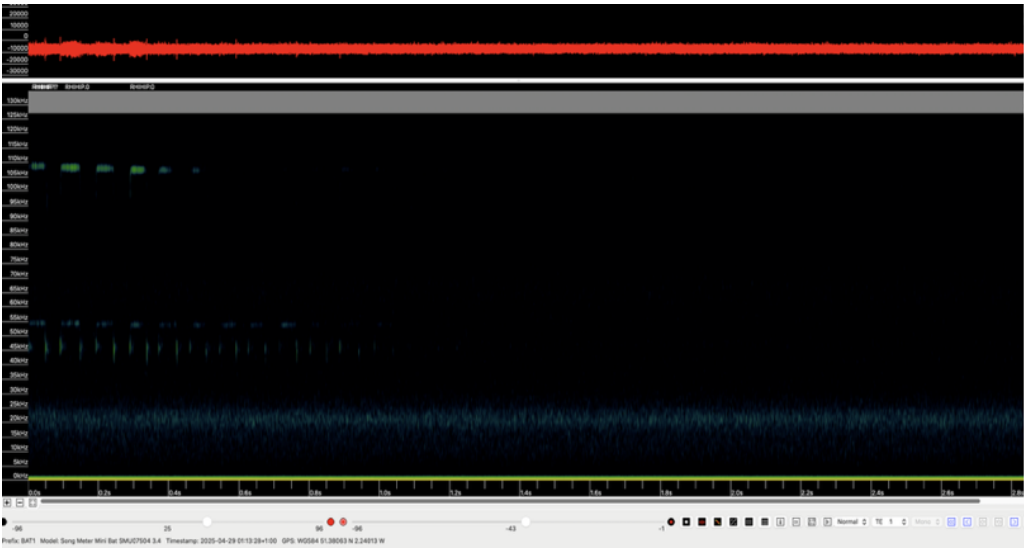
Bats

- 3.35 The adjacent area of scrub would undoubtedly offer value to foraging and commuting bats, however no trees or buildings are present within the survey boundary and no bats or evidence of their activity was found during the assessment.
- 3.36 Trees present offsite though adjacent to the boundaries of the site were assessed from ground level for Potential Roosting Features (PRFs), although none were identified. Furthermore, **no bats or evidence of their activity was found during the assessment.**

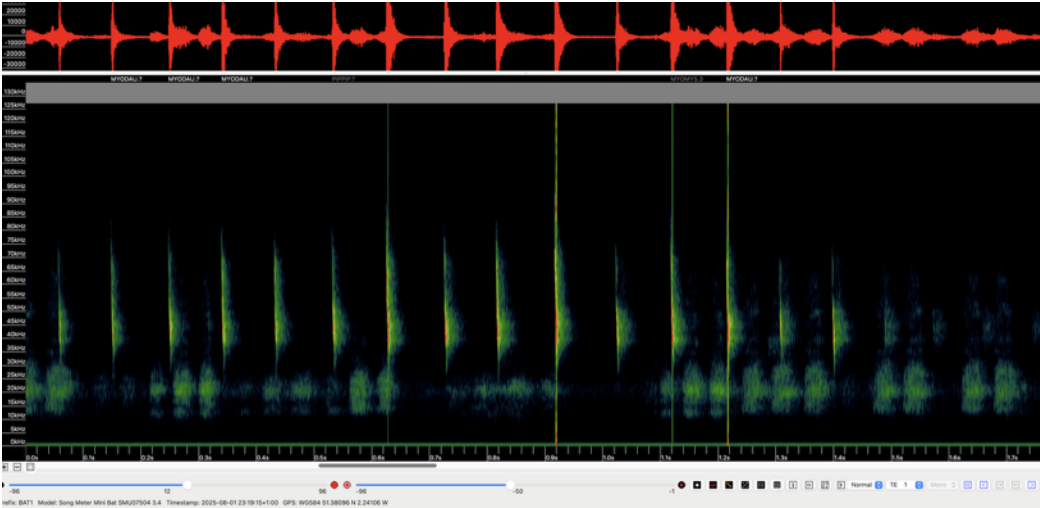
Static Bat Monitoring Results

- 3.37 During the static monitoring survey effort, a total of seven species were recorded to be utilising the site grounds – common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P.pygmaeus*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, *Myotis* sp, brown long eared bat *Plecotus auritus*, and lesser horseshoe bat *Rhinolophus hipposideros*. Static monitoring did not record a significant number of registrations, with a maximum count of 298 recorded within a 5-day period, during the month of August (summer survey period). The most common bat recorded was common pipistrelle, accounting for 48.8% of total registrations. Noctule were the second most recorded species comprising 24.7 % of total recorded echolocations. All other species were recorded infrequently; notably, two brief calls from lesser horseshoe bat were recorded during the Spring and Summer surveys. Examples of bat calls are provided below.
- 3.38 Survey Dates are provided in **Table 4**, and Survey Results are shown in **Table 5**.

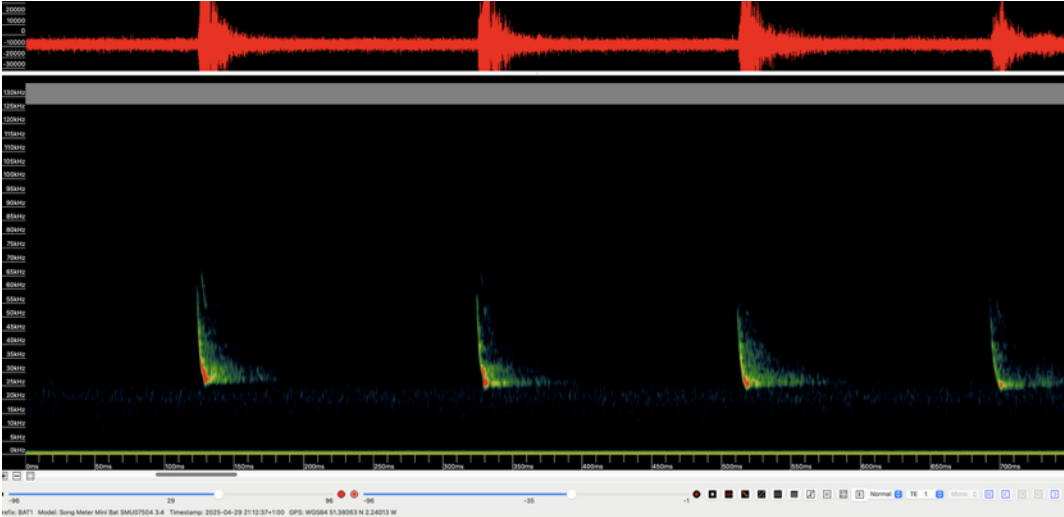
a)



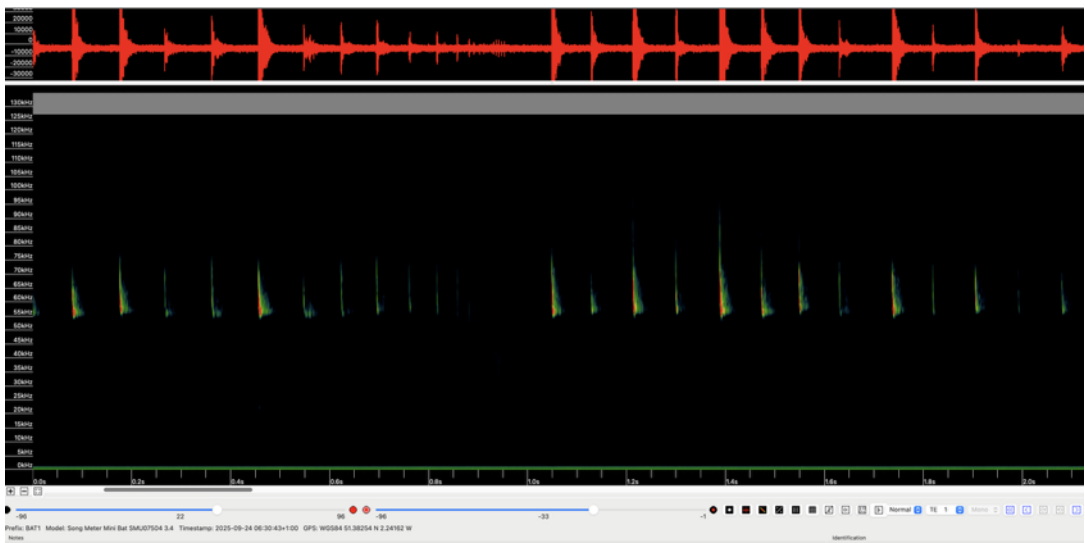
b)



c)



d)



Bat Call Examples: a) Brief and faint lesser horseshoe bat *Rhinolophus hipposideros* pass recorded in April 2025; b) *Myotis* registration, August 2025; c) Serotine *Eptesicus serotinus* commuting pass, April 2025; d) Soprano pipistrelle *Pipistrellus pygmaeus*, September 2025

Table 4: Dates of Bat Automated Static Monitoring

Survey Month	Static recorder location	Start date	End date	Total survey hours*
SPRING	ST 83369 64671	25/04/25	30/04/25	52
SUMMER	ST 83369 64671	01/08/25	06/08/25	48
AUTUMN	ST 83369 64671	22/09/25	27/09/25	64

*Rounded to nearest hour

Table 5: Summary of Bat Species Recorded (and total/average number of sound files) during Static Monitoring Survey on Site

Survey Month	C-PIP	S-PIP	NOC	SER	MYO	BLE	LHS	Total Registrations	Mean registrations per night	Mean registrations per hour*
Spring	74	11	20	3	12	8	1	129	25.8	2.4
Summer	148	19	87	18	22	2	-	298	59.6	6.2
Autumn	27	6	19	8	18	4	1	83	16.6	1.2
Total	249	36	126	29	52	14	2	510		
Total %	48.8	7.1	24.7	5.7	10.2	2.7	0.4			

Species Index: C-PIP = *Pipistrellus pipistrellus*, S-PIP = *Pipistrellus pygmaeus*, NOC = *Nyctalus noctula*, SER = *Eptesicus serotinus* MYO = *Myotis* sp. BLE = *Plecotus auritus*

LHS = *Rhinolopus hipposideros*

*Rounded to nearest hour

Badger

- 3.39 Badger may occasionally access the site whilst traversing the surrounding environment, however, no badger setts or further evidence of badger activity was discovered onsite or within a 30 m radius of the survey boundary where accessible.

Birds

- 3.40 The site was considered to offer little in the way of overall nesting opportunities and no bird nests were identified within the survey boundary although the scrub that lies outside the eastern boundary would offer nesting opportunities to an assemblage of local bird species.

Dormouse

- 3.41 Neighbouring scrub, found outside the eastern boundary could provide suitable foraging and nesting habitat, although the site itself does not provide any opportunities for the species and no evidence of dormouse activity was discovered during the site assessment.

European hedgehog

- 3.42 No evidence of hedgehog was discovered during the site visit, although the vegetated areas of the site and the log pile will likely provide areas of cover to commuting, foraging and sheltering hedgehogs.

Reptiles and amphibians

- 3.43 No evidence of reptiles or amphibians was found during the site assessment. The onsite waterbody associated with the former sewage infrastructure is now obscured by arboricultural arisings, which limited access and prevented confirmation of whether it currently holds water. This significantly reduces its suitability as a breeding feature for amphibians, including great crested newt (GCN), though its artificial structure and limited surrounding habitat already constrain its ecological value.
- 3.44 Although the piled arboricultural arisings could provide temporary cover or refuge for commuting and foraging reptiles and amphibians, no other suitable refugia - such as log piles, rubble, or dense scrub - were identified within the site. The remainder of the site is dominated by hardstanding, sparsely vegetated ground, and heavily disturbed areas, offering little structural diversity or thermal variation required by reptile species.
- 3.45 One pond (Pond 1) is located 18 m from the site boundary and is connected via vegetated margins. However, it was found to be largely dry and defunct during 2022 survey work and during the 2025 site visit was inaccessible due to densely growing vegetation. A further five ponds exist within a 500 m radius but were not accessed due to land ownership constraints. The intervening landscape comprises mostly improved pasture and arable land with limited high-quality terrestrial habitat or functional connectivity to the application site

4 DISCUSSION & RECOMMENDATIONS

Proposals

- 4.1 The proposals for the site near Churchfields, Upper South Wraxall are for the construction of a new dwelling. A planning application shall be submitted to Wiltshire Council in due course. The purpose of the survey was to undertake an updating appraisal of the site for its potential ecological value to notable and protected wildlife, and to look for evidence of such species. Furthermore, habitats onsite were assessed for their ecological importance. The survey results provide information to determine the likely ecological impact the proposed development will have on wildlife species, and to inform the level of further survey effort and mitigation required to comply with relevant nature conservation policies and legislation.

Habitats

- 4.2 As part of the desk study, online resource MAGIC was checked for statutory and non-statutory designated sites, of which none were identified within a 2km radius. The surveyed site is located within a semi-rural location with nearby farmland and pockets of woodland with good connectivity for wildlife provided by hedgerows throughout the wider landscape, and the limited areas of surrounding woodland are likely to support an assemblage of wildlife, including bat populations. However, no direct impacts to surrounding habitats are anticipated as a result of the development proposal, although use of nocturnal lighting should still be carefully considered to ensure no indirect impacts occur (see point 4.14).
- 4.3 Habitats within the survey boundary are dominated by sparsely vegetated urban land with a small parcel of modified grassland which is widespread both locally and nationally. Consideration was given to the presence of rare plants at site margins, though none were discovered during the survey effort. Species composition was indicative of disturbed ground and considered unlikely to support rare plants. As such, further botanical survey effort is not recommended.

Species

Bats

- 4.4 Results from the online desk study showed four EPSLs have been granted for a total of three species of bat, indicating a diversity of bat species within the surrounding environment that includes lesser horseshoe bats which are Annex II species of the EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora.
- 4.5 The surrounding landscape offers a variety of habitats that are conducive to supporting bat populations. Nearby residential gardens, and the adjacent area of scrub will likely provide important

local commuting and foraging opportunities that could offer a rich source of insect prey for bats. The presence of ancient and semi-natural woodland within the surrounding environment further enhances the area's suitability, as they provide stable, undisturbed environments such as veteran trees which are favoured for roosting. Additionally, the nearby wood-pasture, parkland and traditional orchards, create a diverse mosaic of habitats, offering a variety of foraging sites and commuting routes for bats.

- 4.6 The trees present immediately outside the survey boundary were assessed for their potential to support roosting bats and none displayed suitable PRFs or evidence of use by roosting bats. Furthermore, no evidence of bat roosting was discovered during the site walkover. Therefore, no loss or direct impacts to bat roosts are anticipated as part of the proposals and no further survey effort on the trees is recommended.
- 4.7 These trees and adjacent area of scrub will likely offer foraging opportunities to the local bat population. Following the initial PEA undertaken in 2022 by Cotswold Environmental Ltd, bat activity surveys were conducted using a static recording device placed on-site between June – October of the same year. These surveys recorded five bat species utilising the site, with common pipistrelle the most frequent. Activity levels were low and unremarkable for the rural edge setting. No Annex II species associated with the Bath and Bradford-on-Avon Bat SAC were recorded.
- 4.8 The site lies within a 4000 m greater horseshoe maternity buffer of the Bath and Bradford upon Avon Bat SAC, and as such consideration must be given for potential impacts to sensitive features for commuting and foraging bats as part of the proposed works. Subsequently, it was recommended that a suite of static monitoring should take place to determine activity of local bat populations with the survey boundary, recording for at least 5 consecutive nights per season (Spring, Summer Autumn). The information collected during this survey effort was used to determine activity and species composition onsite, and to inform on a suitable mitigation strategy to avoid impacts to local bat populations. Taking into consideration the small size of the site, comprising approximately 0.05 ha, coupled within unsafe terrain for nocturnal surveying, nighttime bat walkover surveys were not undertaken (see limitations).
- 4.9 Automated monitoring in 2025 recorded 510 bat registrations across three seasonal survey periods, compared with 750 registrations recorded during a longer monitoring window (June–October) in 2022. The reduced number of monitoring periods in 2025 reflects the site's previously established low ecological value and existing data from 2022 confirming low levels of bat activity. When accounting for survey duration, overall levels of bat activity were broadly comparable between years, indicating no substantive change in site use. Common pipistrelle remained the dominant species, comprising 49% of registrations in 2025 and 58% in 2022. Notable differences included an increase in noctule activity (25% in 2025 versus 4% in 2022) and a reduction in *Myotis* activity (10% compared with 26% in 2022), while serotine activity remained stable at around 6-8%. However, given the generally low number of overall registrations, these apparent changes are not considered significant and likely reflect natural variation in nightly activity rather than any ecological shift.

- 4.10 Due to overlapping call parameters within the *Myotis* genus, it can be difficult to identify calls to species level with confidence. However, based on analysis of the calls recorded during the static monitoring, most *Myotis* registrations were consistent with whiskered or Brandt's bat (*M. mystacinus/brandtii*), with a small number potentially attributable to Daubenton's bat (*M. daubentonii*). Given the low number of *Myotis* registrations recorded across both years, this limited species-level identification does not materially affect interpretation of the results or the overall assessment of site value. The 2025 monitoring also recorded occasional registrations of brown long-eared and lesser horseshoe bats, none of which were detected previously.
- 4.11 Two brief, low-amplitude registrations of lesser horseshoe bat were recorded, likely representing distant contacts from transient individuals commuting within the wider landscape associated with the Bath and Bradford-on-Avon Bat SAC. These registrations are considered to represent transient commuting activity and are not indicative of core foraging habitat or a key commuting route. As *Rhinolophus* species produce highly directional echolocation calls of relatively low intensity, detectability decreases rapidly with distance; therefore, the absence of further registrations should not be interpreted as evidence of absence or of infrequent use. Nonetheless, the limited and sporadic nature of these detections, combined with the site's open setting and lack of strong linear connectivity, confirms that the site does not function as an important commuting route or core foraging habitat for horseshoe bats.
- 4.12 The recorded bat assemblage is typical of rural edge settings and considered common and unremarkable in a local context. Overall activity levels were generally low across both survey years, reflecting the limited value of the site to local bat populations. This likely relates to the sparsely vegetated and open nature of the onsite habitats, which offer little structural complexity or insect prey resource to support sustained foraging activity. Seasonal activity patterns in 2025 again showed a clear summer peak consistent with the 2022 results, reinforcing the conclusion that the site continues to function as a low-value foraging area of limited significance to the local bat assemblage.
- 4.13 As such, it is concluded that no loss of important habitats or impacts to functionality for local bat populations are anticipated as a result of the proposed development. Furthermore, given the site's distance from the nearest component of the Bath and Bradford-on-Avon Bat SAC and the absence of any functional habitat linkages or key commuting corridors connecting the site to the SAC, no significant adverse effects on the qualifying features of the SAC are anticipated. However, as with many bat species - and notably those recorded within this study- careful consideration must be given to the use of artificial lighting to avoid potential effects on commuting and foraging behaviour. Should external lighting be required, it is recommended that a site-specific lighting mitigation scheme be prepared, setting out the approach to nocturnal lighting during both the construction and operational phases, with the objective of retaining dark corridors across the site. An outline of appropriate measures is provided below.

Nocturnal lighting measures

- 4.14 The insensitive use of external lighting within the proposed development could have a negative impact upon bats using the site for foraging and commuting activity.
- 4.15 As suitable bat habitat occurs within the nearby surrounding environment, low-level lighting should be used to avoid indirect disturbance to bats and other nocturnal animal species that may exploit local habitats and measures must be taken to ensure nocturnal animals are safeguarded from inappropriate use of light and noise throughout the hours of night during the construction period, as well as to protect important commuting corridors for bats. Any external lighting installed as part of the development must be used in accordance with Guidance Note 08/23: Bats and Artificial Lighting¹⁰.
- 4.16 Sensitive lighting strategy measures during the construction period are as follows:
- Where possible, works must not be carried out after dusk and must not commence until after dawn.
 - Generators and machinery that emit significant noise levels must not be left to run after dusk.
 - LED lighting sources must be used, which generally have a narrower and more directional beam.
 - Light spill must be controlled and if lighting is required at night, hooded shields must be fitted to prevent spill onto nearby habitats that are likely to support wildlife, including nearby trees and hedgerows.
 - Lighting must not be directed towards any bat or bird compensation features.
- 4.17 In addition to the above, when selecting appropriate external lighting, the following specifications should be taken into consideration:
- Any external lighting incorporated into the proposed development should be LED luminaires due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
 - Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats¹¹.
 - All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used¹²

Badger

- 4.18 Whilst no evidence of badgers or sett building was found within the survey boundary or in adjacent habitats, where accessible, it is possible that the site is used for commuting purposes, and individuals may occasionally access the survey area. However, no direct impacts to badger setts are anticipated as a result of the development works, and no further survey effort for this species is recommended.

¹⁰ <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

¹¹ Stone, E.L. (2013) *Bats and lighting: Overview of current evidence and mitigation*

¹² Bat Conservation Trust & Institute of Lighting Professionals (ILP) 2023. *Guidance Note 08/23: Bats and artificial lighting in the UK*. Bats and the Built Environment Series.

Potential impacts to badger

- 4.19 Taking the above into consideration, no direct impacts to badger setts are anticipated as part of the proposed works. Although, due to the suitability of the surrounding habitats for sett building, commuting and foraging, and to further reduce risks, Reasonable Avoidance Measures (RAMs) should be adhered to with a view to safeguard badgers and other mammals at all times (see section 5).

Dormouse

- 4.20 No evidence of dormouse was discovered onsite. Adjacent scrub, present along the eastern boundary of the site would provide commuting and potential foraging opportunities for dormouse, should they occur within the local area. However, it is understood that no part of this is to be impacted by the proposed development works as it lies on neighbouring land. The wider environment was not extensively wooded, though smaller woodland blocks occurring within a 2 km radius would be of sufficient size to support dormouse populations.

Potential impacts to dormouse

- 4.21 Taking above into consideration, no impacts to dormouse are anticipated and no further survey effort is recommended. To further reduce risks, Reasonable Avoidance Measures (RAMs) should be adhered to with a view to safeguard dormouse and other mammals at all times (see section 5).

European Hedgehog

- 4.22 No direct evidence of hedgehogs was found on-site, although the arboricultural arisings may provide some limited cover.

Potential impacts to European hedgehog

- 4.23 Due to the suitability of the site and surrounding habitats for commuting and foraging, it is important that provisions are made in each boundary line (if fenced) with a view to allow them to successfully commute. Gaps in fences should be at least 130mm X 130mm and to further reduce risks, Reasonable Avoidance Measures (RAMs) should be adhered to with a view to safeguard hedgehog and other mammals at all times (see section 5).

Nesting birds

- 4.24 No suitable nesting opportunities exist within the survey boundary and no evidence of nesting was discovered during the site assessment; although, the neighbouring trees and scrub would offer value for nesting to a variety of local bird species.

Potential impacts to nesting birds

- 4.25 If at any point nesting birds are discovered utilising the trees or shrubs that grow along the eastern boundary, without appropriate mitigation, these may be impacted by the development proposals. Impacts to nesting birds can be avoided by timing works outside the bird nesting season which generally runs between February-August, or by ensuring a site visit is carried out by a suitably qualified ecologist ahead of works commencing. In the event that any nesting birds or suspected nesting activity is discovered prior to works commencing, works must cease and Cotswold Environmental Ltd contacted for further advice. If an active birds nest is discovered on site, an area around the nest site will be protected from disturbance with a suitable fence (not HERAs fencing) that would include an appropriate buffer zone. Work will then be avoided in this area until the nest is no longer in use. Buffer zones in this respect will normally be 5m in diameter, and will be delineated by canes, cordon tape and signage.

Reptiles and Amphibians

- 4.26 Following the initial PEA undertaken in 2022 by Cotswold Environmental Ltd, reptile Presence/Absence Surveys using artificial refugia were conducted onsite and eDNA sampling was undertaken on the onsite pit containing water to assess the potential presence of GCN.
- 4.27 Previous survey results indicated limited and opportunistic use of the site by reptiles, with a single juvenile slow worm recorded and no evidence of a significant population. GCN presence was not detected in the onsite water pit through eDNA analysis. Since then, vegetation on site has been managed to a short sward, substantially reducing its suitability for reptiles, although some arboricultural arisings may offer minimal cover. The well is now obscured by these arisings, further reducing its potential value to amphibians, including GCN. As such, the site currently holds negligible suitability for either group.

Potential impacts to reptiles and amphibians

- 4.28 Taking into consideration the poor value of terrestrial habitat for reptiles and amphibians dominating the site, it is considered that impacts as a result of the proposed development are unlikely, and no further survey effort is recommended. In addition, a GCN European Protected Species Licence is not required from Natural England for works to proceed. However, to further reduce risks, Reasonable Avoidance Measures (RAMs) should be adhered to with a view to safeguard reptiles and amphibians at all times (see section 5).
- 4.29 In the unlikely event GCN are discovered, works will cease and Natural England contacted via the appointed ecologist prior to recommencement. A European Protected Species Licence would then likely be required from Natural England in order to allow works to proceed further.

Biodiversity Enhancement

- 4.30 As a self-build residential application, the proposed development is exempt from mandatory Biodiversity Net Gain (BNG) requirements under the Environment Act 2021. Nevertheless, in accordance with the National Planning Policy Framework (NPPF, 2024) and Local Planning Authority policy objectives to promote biodiversity enhancement where possible, a range of proportionate on-site measures are recommended to deliver ecological benefits:

Bats

- 4.31 To enhance the site's value for bats, it is recommended that integrated bat roosting features are incorporated into the fabric of the new dwelling. Suitable options include built-in bat tubes such as Schwegler 1FR Bat Tubes, Habibat Bat Boxes, or similar integrated designs. These features should be installed at least 4 m above ground level, positioned on elevations that are not north-facing, and located away from direct external lighting to maintain dark flight paths.

Nesting Birds

- 4.32 To provide opportunities for nesting birds, one or more integrated bird bricks (for example, Schwegler 1SP Sparrow Terraces, WoodStone Swift Boxes, or equivalent) should be built into suitable elevations of the new dwelling. Integrated units are preferable to externally mounted boxes as they offer long-term durability and reduced maintenance. Units should be positioned at least 3 m above ground level, facing north or east to avoid exposure to prevailing weather, and located away from sources of disturbance or artificial lighting.

5 REASONABLE AVOIDANCE MEASURES

- 5.1 If building products need to be stored onsite (e.g. overnight or for more than one day), they will be stored on pallets or retained in bags on pallets to ensure that refuges are not created that may attract animals. Building products should be placed on existing hard standing if possible.
- 5.2 All holes created during the construction period will be filled in and finalised on the same day so as not to leave any pitfall traps. If this is unavoidable, they will be left with a sloping end or ramp to allow animals that may fall in to escape.
- 5.3 Irrespective of the time of year, if any nesting birds are discovered on site, an area around the nest site will need to be protected from disturbance with a suitable fence (not HERAs fencing) that will include an appropriate buffer zone, as determined by the suitably qualified supervising ecologist. Work will then be avoided in this area until the nest is no longer in use. Buffer zones in this respect will normally be 5 m in diameter (depending on the species), and will be delineated by canes, cordon tape and signage.

- 5.4 Any spoil resulting from excavations will either be spread and compacted within the area on the same day or be removed from the construction area on the same day. It will not be left in loose heaps overnight. All cut vegetation will be removed from the development site and immediate surroundings to avoid use by birds as nesting habitat.
- 5.5 Onsite vegetation will be maintained at a height of 10-15 cm or below both prior to and throughout the development to discourage wildlife from taking refuge within the site boundary. If onsite habitats become overgrown, a new mitigation plan may be required containing more stringent RAMs.
- 5.6 Movement of arisings will be carried out sensitively. Should a common reptile or amphibian be discovered whilst the area is being cleared, then it should be removed from site to a safe place in a gloved hand. In the unlikely event that a GCN is found on site, works must stop and the appointed ecologist contacted before works may proceed.
- 5.7 If any impacts to protected species are determined during phased development, then all works must cease immediately and the appointed ecologist contacted for further advice. A European Protected Species Licence may be required from Natural England in order to allow works to proceed further

APPENDIX A: PLANTS RECORDED¹³

Table 6: Indicative plant list recorded on site

Scientific Name	Common Name	DAFOR*
g4 – Modified grassland		
<i>Lolium perenne</i>	Perennial ryegrass	R
<i>Holcus lanatus</i>	Yorkshire fog	D
<i>Dactylis glomerata</i>	Cock's-foot	A
<i>Poa pratensis</i>	Kentucky blue grass	O
<i>Arrhenatherum elatius</i>	False oat-grass	A
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Achillea millefolium</i>	Yarrow	O
<i>Trifolium repens</i>	White clover	F
<i>Trifolium pratense</i>	Red clover	R
<i>Urtica dioica</i>	Common nettle	A
<i>Taraxacum officinale</i>	Dandelion	A

¹³ Plant names according to Rose F, O'Reilly C (2006) The Wild Flower Key, Revised Edition. Penguin Books, London.

<i>Cirsium arvense</i>	Creeping Thistle	A
<i>Anthriscus sylvestris</i>	Cow parsley	R
<i>Heracleum sphondylium</i>	Cow parsnip	A
<i>Rumex obtusifolius</i>	Bitter dock	O
<i>Rubus fruticosus</i>	Bramble	R

*D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

APPENDIX B: LEGISLATION SUMMARY

Habitats Directive

Species listed in the Habitats Directive 1992 (transposed into UK law through the Conservation of Habitats and Species Regulations 2010 and subsequently 2017 as amended) for which it is illegal to deliberately capture, kill or disturb any individual, or deliberately damage or destroy a breeding site or resting site. In 2007 and 2009, the Habitats Regulations were amended to define illegal disturbance as that which would affect the ability of a significant group of animals of a European Protected Species to survive, breed or to rear or nurture their young, or to hibernate or migrate, or to affect the local distribution or abundance of the species.

Natural Environment and Rural Communities (NERC) Act 2006

The act to make provision about bodies concerned with the natural environment and rural communities; to make provision in connection with wildlife, Sites of Special Scientific Interest, National Parks and the Broads; to amend the law relating to rights of way; to make provision as to the Inland Waterways Amenity Advisory Council; to provide for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions; and for connected purposes.

Countryside and Rights of Way (CRoW) Act 2000

The CRoW applies to England and Wales only, enforcing a statutory policy for biodiversity conservation. The UK Biodiversity Action Plan (BAP) provides the framework for fulfilling the UK's responsibilities towards the Convention on Biological Diversity. The CRoW Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.

The Conservation of Habitats & Species Regulations 2017 (the Habitat Regulations) (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters). In Scotland, the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the and the Conservation (Natural Habitats &c.) Regulations 1994. The Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) transpose the Habitats Directive in relation to Northern Ireland.

Bats

In England and Wales, bats and their roosts are protected under the Conservation of Species and Habitats Regulations 2017 (as amended) and the Wildlife & Countryside Act 1981 (as amended). Taken together, this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection' and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

Reptiles

All native British species of reptile (of which there are six) are listed in Schedule Five of the Wildlife and Countryside Act (1981) (as amended) and as such are protected from deliberate killing, injury or trade. Therefore, where development is permitted and there will be a significant change in land use, a reasonable effort must be undertaken to remove reptiles off site to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without an appropriate licence.

Great Crested Newts

Great crested newts and their habitats receive protection under The Conservation of Habitats and Species Regulations 2017 (as amended). This species is also afforded full protection under the

Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under such legislation it is an offence to:

- Intentionally or recklessly kill, injure or capture a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly* damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly* disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.
- Damage or destroy a breeding site or resting place.
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

*Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.

Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6 of the Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Dormouse

The dormouse has undergone substantial declines in recent years as a result of habitat loss, deterioration and fragmentation and is consequently protected as a 'European Protected Species' under the 2017 Conservation of Habitats and Species Regulations, which implements the EC Habitats Directive 92/43/EEC in the United Kingdom. In relation to European Protected Species (EPS), the 2017 Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of a EPS;
- Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to:
 - (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate or (ii) affect significantly the local distribution or abundance of the species to which they belong;
- Damage or destroy a breeding site or resting place of such an animal; and/or

- To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.

In addition, Dormice are protected under the 1981 Wildlife and Countryside Act (as amended).

Dormice are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which make it an offence to:

- Intentionally or recklessly disturb a Dormouse while it is occupying a structure or place which it uses for shelter or protection; and/or
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a Dormouse.

Birds

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended).

Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

APPENDIX B: MAPS & SITE PLANS

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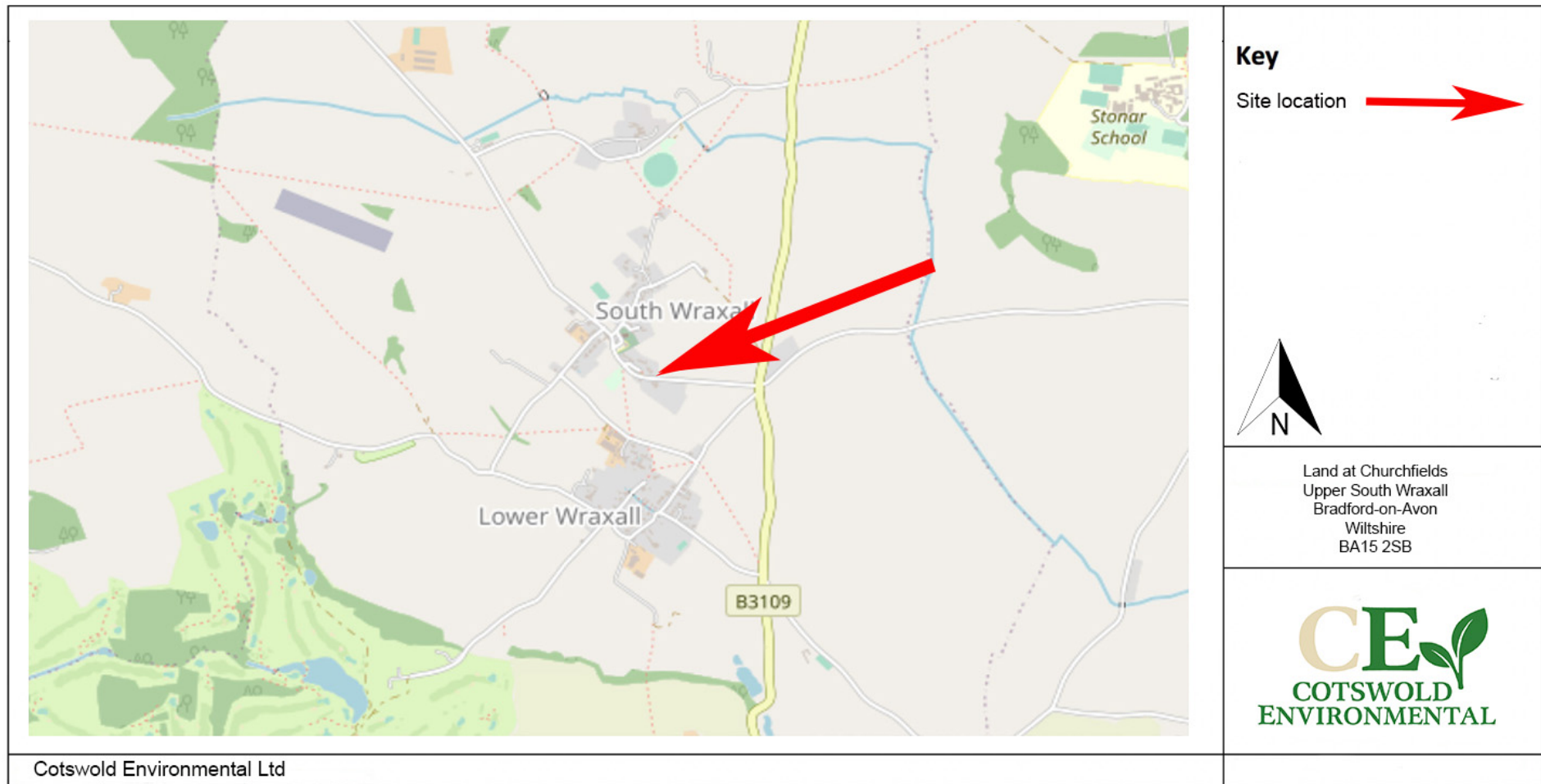
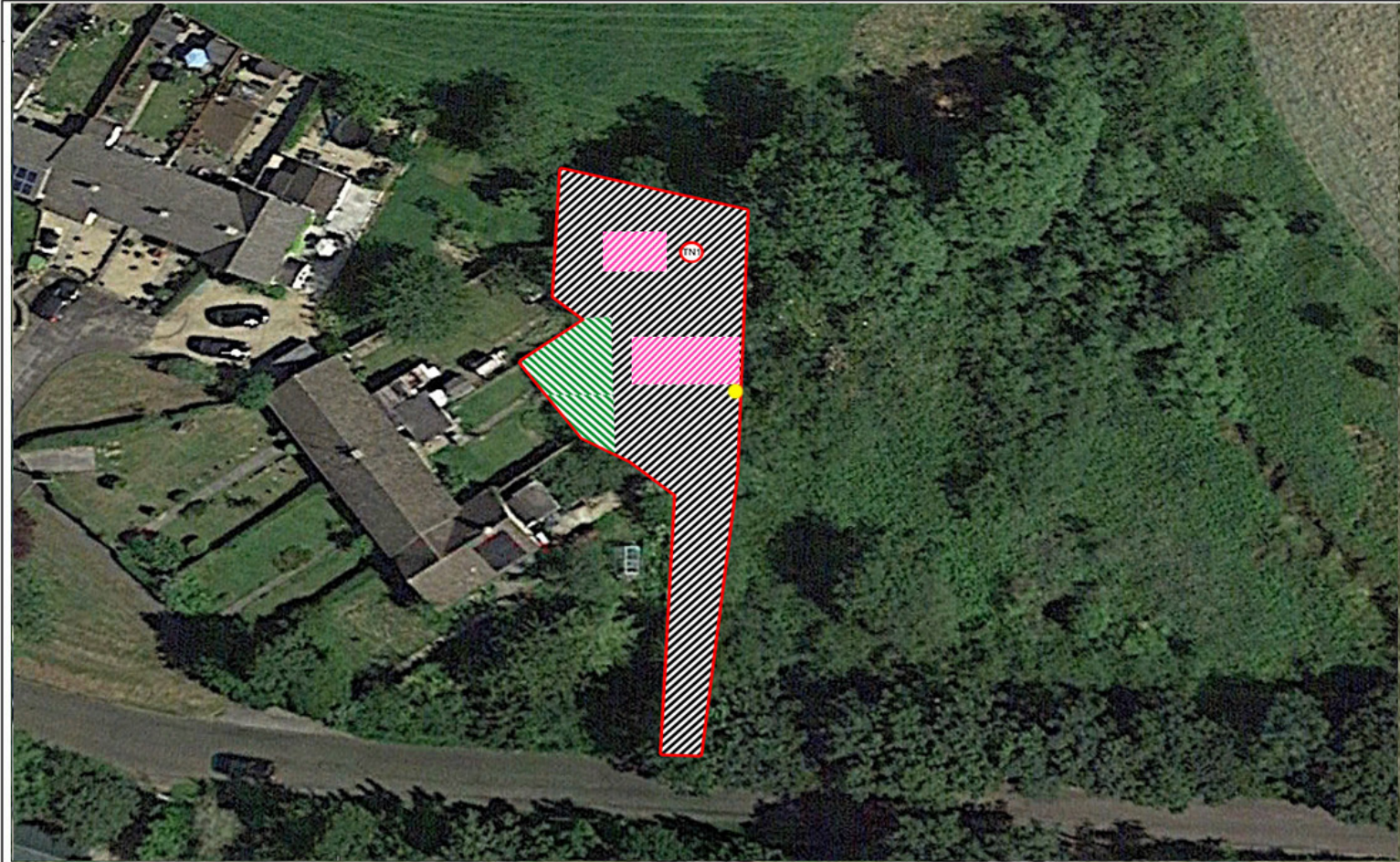


Figure 1: Location Map



Key

- Survey boundary
- Developed land; sealed surface
- Sparsley vegetated urban land
- Other Neutral Grassland
- Target note
- Automated Device - Bats



Land at Churchfields
Upper South Wraxall
Bradford-on-Avon
Wiltshire
BA15 2SB



Cotswold Environmental Ltd

Figure 2: Habitat Map

APPENDIX C: SITE IMAGES



Photo 1: Gated entrance at south-eastern extent of survey boundary.



Photo 2: Driveway serving as access.



Photo 3: View of the site looking south, with dominating u1f sparsely vegetated urban land.



Photo 4: Close up view of the sparsely vegetated urban land that dominates the site.



Photo 5: g4 - modified grassland.



Photo 6: u1b concrete hardstanding.



Photo 7: Scrub growing outside the eastern boundary,



Photo 8: Concrete remnants of former sewage works.



Photo 9: Target Note 1, Arboricultural arisings covering well.