Wegnall's Mill, Ecological Assessment Report



ECOLOGICAL ASSESSMENT REPORT

BARN AT WEGNALL'S MILL PRESTEIGNE

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Wegnall's Mill, Ecological Assessment Report

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Brief

An ecological survey was requested prior to the site being developed. The proposal includes conversion of existing agricultural buildings on the grounds of Wegnall's Mill into a holiday accommodation.

This ecological survey is intended to ascertain sufficient information to evaluate the situation adequately in preparation of the above-mentioned works. The information gathered will be necessary to comply with European Regulations, which relate to planning regulations and with The Wildlife and Countryside Directives and Habitat Regulations. This report was issued with the intention to support a planning consent application.

Summary

- 1. Tereza Rush Ecological Solutions (TREcS) was instructed by Mr Sam Organ, the agent on behalf of the owner of the property, to undertake an ecological assessment. An ecological survey of the site is a necessary requirement supporting a planning application for the proposal.
- 2. The barn at Wegnall's Mill is located in a rural area, south-east of the small town of Presteigne and north of the hamlet of Rodd, in Powys, around the Ordnance Survey grid reference of SO 32276 63013. Although the postal address of the property indicates Radnorshire in Powys, the barn is located in England, just south of the English Welsh border.
- **3.** The survey site consists of a single agricultural building, to the north of the main house that is not a part of the proposed development. Only the barn was subject to the ecological assessment and is proposed to be developed under the current application.
- 4. The structure and its immediate surrounding habitat were surveyed in order to assess the occurrence or the potential for occurrence of individual protected wildlife species. Due to the location and surroundings of the existing barn as well as its construction, the wildlife species in question and those that were considered prior to the proposed works included bat species and passerine nesting birds. The ecological assessment took place in November 2018.
- 5. No previous ecological survey of the site is known to have taken place in the past.
- 6. The barn was assigned a negligible bat roosting potential. No evidence of bat presence, current or past, was found within the property and the barn is not suitable for bat day-roosting. The interior is light and exposed. Bats do not pose a constraint to the proposed development.
- 7. The barn is not suitable for owl nesting. Evidence of past nesting of commonly occurring passerine birds was found in the barn. A single swallow nest was found in the apex of the property; however, it was used by other bird species in 2018. Mitigation measures for the loss of nesting places will be necessary.
- 8. The immediate surrounding habitat consists of a small paddock in the north and a well-maintained amenity lawn in west. The barn is surrounded by a deciduous woodland and lies in close proximity of the Hindwell Brook. The wider surroundings are suitable for wildlife. No additional habitat will be affected by the proposed development.
- **9.** Presence of no other European protected species was confirmed, and it is considered unlikely that other wildlife species protected under the European or the UK legislation would be affected by the proposed works; however, reasonable avoidance measures should be considered as a preventive measure during the construction phase of the proposal.

1. Non-technical summary

This report provides an overview of the findings of the assessment undertaken, together with the key recommendations. The main body of the report contains important information in respect of how the assessment was undertaken, its findings, its recommendations and any constraints which may apply. It is essential that the report is read in full by any person intending to rely on its contents.

An assessment of a single barn on the grounds of Wegnall's Mill, near Presteigne in Powys was undertaken in support of a planning application. The assessment comprised a building inspection in respect of bats and breeding birds, designed to determine whether bats and / or birds have used, or are currently using the building, or whether there was any probability of such use, and to provide recommendations for further actions or surveys where necessary. The assessment was carried out in November 2018.

The proposal includes conversion of the existing disused barn to create a holiday let. This ecological assessment was carried out to find out whether the proposed works could damage or destroy a bat roost, disturb bats roosting in the building, and similarly cause disturbance, damage or injury to nesting birds.

The property was assessed as a negligible bat roosting potential due to its construction and the materials used. The interior of the structure is very light; the wooden cladding forming the walls is dilapidating in many places. The slate roof is not underlined, and no potential bat roosting places were identified. The barn remains permanently open and; therefore, accessible to bats for foraging, potentially serving ad a sheltered feeding area; however, no evidence of such use was found.

Bats do not pose any constraint to the proposed development.

Evidence of past bird nesting was found in the structure. Bird nesting opportunities will be lost or reduced as a result of the works. Mitigation measures for the loss of bird nesting places are compulsory. The works should be scheduled outside of the bird nesting season that generally lasts from March to August. Should this prove impractical, an experienced ecologist will visit the site immediately prior to any conversion works to confirm the absence of active bird nests.

No surrounding habitat will be affected by the proposal and it is considered very unlikely any other protected species of wildlife could get harmed or disturbed in the due course of the works. Due to the location of the site, it is recommended to follow reasonable avoidance measures preventatively.

2. Introduction

2.1 Background

TREcS was instructed by Mr Sam Organ, the agent on behalf of the owner of Wegnall's Mill, to undertake an ecological survey to satisfy the requirements of Herefordshire planning for the development of the properties in the applicant's possession.

The survey site comprises a single agricultural building on the grounds of Wegnall's Mill, near Presteigne, a small town in the rural part of Radnorshire in Powys. Although the postal address of the property falls into Powys, the barn itself is located just south of the English – Welsh border and belongs under the Herefordshire planning system.

The structure is double storey high with the interior open to the apex. The footprint of the property will be maintained except for slight extension to the north, only affecting the existing hardstanding, and no other additional habitat will be modified by the proposed works. The barn is to be converted into a holiday let.

The small town of Presteigne is surrounded by farm land with mature hedgerows, small wooded areas as well as more extensive woodland plantation further to the west and south-east of the survey site. It lies proximity of waterbodies, including the Hindwell Brook formerly powering the mill. The wider surrounding habitat offers good quality foraging habitat for bats and birds.

The survey was to satisfy the requirements of Natural England regarding protected species on site and to support the planning application for the proposed works.

2.2 Legislation

THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017

The Habitat Regulations 2017 transpose EEC Council Directive 92/43 (The Habitats Directive) into the UK law. The regulations place duty upon the relevant authority of the UK government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the UK government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000.

The regulations also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 4 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species in the UK. Schedule 4 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

THE WILDLIFE AND COUNTRYSIDE ACT (WCA)1981

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Habitat Regulations 2017, offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

THE COUNTRYSIDE AND RIGHTS OF WAY (CRoW) ACT 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments to have regard for biodiversity and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These species and habitats are a material consideration in the planning process.

THE HEDGEROW REGULATIONS 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

PLANNING POLICY

Planning Policy Statement 9 provides guidance to local authorities regarding the protection of biodiversity and geology through the planning system in England. Key principles relating to biodiversity include:

• Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas. These characteristics should include the relevant biodiversity and geological resources of the area. In reviewing environmental characteristics local authorities should assess the potential to sustain and enhance those resources.

• Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests. In taking decisions, local planning authorities should ensure that appropriate weight is attached to designated sites of international, national and local importance; protected species; and to biodiversity and geological interests within the wider environment.

• Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development.

National planning policy is implemented through local and regional planning policies.

NPPF policy 109: Conserving and enhancing the natural environment

The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;

- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including

by establishing coherent ecological networks that are more resilient to current and future pressures;

- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

SPECIES SPECIFIC LEGISLATION

Bats

All UK bat species and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended) through inclusion in Schedule 5, under the Countryside and Rights of Way Act 2000, and under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. The Conservation Regulations designate bats as European Protected Species. In addition, they are protected by the Bern Convention and are given migratory species protection within the Bonn Conservation Agreement.

Taken together, the Acts and Regulations protecting bats make it an offence to:

- Deliberately kill, injure, capture or take bats
- Deliberately disturb bats. This particularly relates to disturbance that is likely to:
 - o Impair their ability to survive, breed or reproduce, or to rear or nurture their young
 - Impair their ability to hibernate or (for migratory species) migrate
 - Affect significantly the local distribution or abundance of the species to which they belong
- Damage or destroy bat roosts
- Possess or transport a bat or part of a bat, unless acquired legally
- Sell, offer for sale or exchange bats or parts of bats.

A roost is any structure or place used for shelter or protection. Bats need to have access to a number of roosts because they use different roosts depending on season, breeding status and prevailing weather conditions. For this reason roosts are protected whether or not bats are present at the time.

As bats are designated European Protected Species (EPS), development and building works that are likely to result in the disturbance of bats, damage to or destruction of their roosts, or require bats to be caught or translocated, usually require an EPS licence to be obtained from Natural England before any works begin. Obtaining a licence involves completing an Application Pack, including a Method Statement that details mitigation appropriate to maintaining the 'favourable conservation status' of the local bat population. Three conditions must be met before a licence can be granted:

- There is no satisfactory alternative
- The development will not be detrimental to the maintenance of local bat populations at a 'favourable conservation status' in their natural range
- The development must be for 'imperative reasons of overriding public interest including those of a social or economic nature' unless falling under other special categories such as prevention of the spread of disease.

An EPS licence is required for all development activities if there is a reasonable likelihood that an offence against Conservation of Habitats and Species Regulations 2017, Wildlife and Countryside Act 1981 (as amended) or Environmental Damage Regulation 2009 (as amended) will be committed.

The following offences could potentially be committed by carrying out the proposed development if any bat species are present during the proposed works:

- Capturing or killing – a wild animal of a European Protected Species (EPS) could be deliberately captured, injured or killed (Reg 41(1)(a))

- Disturbing EPS – a wild animal of an EPS could be deliberately disturbed including in particular a disturbance which is likely to impair its / their ability to survive or hibernate (Reg 41 (1)(b))

- Disturbing EPS whilst occupying a structure or place used for shelter or protection includes intentional and reckless disturbance (s9 (4)(b) WCA)
- Damage of an EPS breeding site or resting place (Reg 41 (1)(d)) strict liability

The above stated **offences can be avoided** where works are to take place when bats are not present and bat roost will be maintained. If roost is going to be available to bats at the time they usually occupy the structure, a **continued ecological functionality of the site will be preserved**. Suitable mitigation measures must be put in place prior, during and post works to ensure that continued ecological functionality will be maintained. An EPS licence is not required if continued ecological functionality is preserved and roosting conditions for bat will remain unchanged or will improve as a result of the proposed works. An experienced ecologist must attend works potentially affecting roosting bats to ensure legality of works.

In case the above listed offences cannot be guaranteed to be avoided throughout the proposed development, an EPS licence must be sought.

A simpler and faster way of carrying out development with low ecological impact has been introduced by Natural England and is now fully accepted for sites with low numbers of more commonly occurring bat species. The development is then carried out in line with a method statement prepared for the works and under the supervision of the licensed ecologist. **Low ecological impact class development licence** only covers low numbers of "common" bats: i.e. Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's bat (*Myotis daubentonii*), Brown long eared (*Plecotus auritus*), Natterer's bat (*Myotis nattereri*), Whiskered (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*), providing the site in question does not serve as a maternity or hibernation roost. Serotine bat (*Eptesicus serotinus*) and Lesser horseshoe bat (*Rhinolophus hipposideros*) have recently been added to the list of bat species qualifying for the low ecological impact bat mitigation licence in selected counties across England where these species occur on more regular basis.

Birds

In the UK, with the exception of 13 'pest species' of birds, which may be killed by authorised persons only, wild birds have general protection under the Wildlife and Countryside Act (1981) (as amended).

Birds receive additional protection under the European Communities Council Directives on the Conservation of Wild Birds. This directive relates to the conservation of all species of birds naturally occurring in the wild in European territory of the Member States, as well as their nests and habitats.

All birds, their nests and eggs, are protected by law and it is, therefore, offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird
- Intentionally take, damage or destroy the nest of any wild bird whilst in use or being built (= active nest)
- Intentionally take or destroy the egg of any wild bird
- Have in one's possession or control an egg or part of an egg which has been taken in contravention of the Act

In addition to the general protection afforded to birds, some rare breeding birds are further protected by special penalties. These birds are listed in Schedule I of the Act and are usually referred to as Schedule I species.

It is an offence to:

- Intentionally (or recklessly (CRoW Act 2000) disturb any Schedule I species while it is nest building or is at, or near, a nest with eggs or young
- Intentionally disturb the dependent young of such a bird

Over 50 bird species are priority species on the UK Biodiversity Action Plan (BAP). Listing on Local BAPs and their distribution throughout the UK are variable according to species.

In addition, the RSPB regularly publish a list of the population status of all UK bird species, with species listed on red, amber or green list according to their historical and recent population fluctuation.

3. Aims and Objectives

The objectives of the report are as follows:

- present the results of the desk study and field survey
- make an assessment of the potential impacts on bats, passerine birds and herpetofauna
- identify potential constraints with regards to bats, birds and other protected species
- provide recommendations for further survey work and/or mitigation and licensing requirements.

The following ecological features were relevant to the survey carried out by TREcS:

- Proximity of statutory and non-statutory designed wildlife sites
- Legally protected wildlife species
- All other species of wildlife potentially affected by the proposed development

This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2018).

4. Site description

4.1 Surrounding Area

The surveyed site is situated south-east of Presteigne and north of a small hamlet of Rodd.

Presteigne is a town and community in Radnorshire, Powys, Wales. It was the county town of the historic county of Radnorshire. Despite lying on a minor B-road the town has, in common with several other towns close to the Wales-England border, assumed the motto, "*Gateway to Wales*". The town sits on the south bank of the River Lugg, which forms the England–Wales border as it passes the town — the border effectively wraps around three sides of the town (north, east and south).

The farmland dominated landscape contains numerous mature hedgerows and small wooded areas as well as more extensive woodland plantations. Wegnall's Mill is located on the Hindwell Brook, approximately 140 metres above the sea level.

The area can only be accessed by small roads; the nearest one being the B4355, approximately 200m to the west of the site.

The property subject to the proposed development is located around the Ordnance Survey grid reference of SO 32276 63013.

Location of Wegnall's Mill is shown in Figure 1; Figure 2 shows the layout of the site, specifying the structure subject to the ecological assessment.



Figure 1 Location of Wegnall's Mill shown with a red arrow (modified from Walkhighlands.co.uk, 2019), original scale 1:25,000

Figure 2 Layout of the survey site showing the location of the structure subject to the proposed development in red (modified from Geostore.com, 2019)



4.2 Description of the property and the surrounding habitat

Position of the structure described in this report is shown in Figure 2.

The barn is immediately surrounded by hardstanding and well-maintained amenity lawn to the west and the compacted access track to the north. There is a small paddock further north and deciduous woodland in other aspects of the property. There are two semi-mature trees immediately north of the barn – a spruce that will be preserved and a non-native saccharine maple tree proposed to be removed as a part of the development works.

The site is in a rural area; further surroundings consist of pasture and crop farmland and hay meadows, small wooded areas and brooks as well as extensive plantations in close vicinity form a habitat of high suitability for wildlife.

The surveyed barn is located around the Ordnance Survey grid reference of SO 32276 63013.

The proposed works will slightly alter the footprint of the existing structure by a small extension in the north aspect across the existing compacted access track and no additional habitat will be affected in the due course.

The barn is of a double storey height with the interior open to the apex. The base of the structure is formed of cemented stone while the walls are of a single layer of wooden cladding, disintegrating in many places. The roof is covered with traditional roofing slates and is not underlined. The floor is made of stone. The barn currently serves as storage.

The wooden joinery, supporting the roof structure, is in a good condition and doesn't leave gaps. The property is shown in Figures 3 - 7.



Figure 3 Barn on the grounds of Wegnall's Mill, view from north-east

Figure 4 Barn on the grounds of Wegnall's Mill, view from south-east



Figure 5 Barn on the grounds of Wegnall's Mill, view from south-west





Figure 6 Barn on the grounds of Wegnall's Mill, interior

Figure 7 Barn at Wegnall's Mill, showing the surrounding habitat



5. Methods

5.1 Records search

A data search in respect to bats, roof nesting birds and designated sites within a radius of 2km of the site was carried out. Extensive database of TREcS based on surveys carried out in vicinity of the site was consulted.

The Magic database (www.magic.gov.uk) was also consulted to identify nearby sites with conservation designations for bats and other wildlife species.

5.2 Previous surveys

No ecological assessment of the barns, subject to the current proposal, was previously carried out.

5.3 Personnel

The daytime inspection was conducted by Tereza Rush, MSc. (Hons.), senior ecologist, and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), with ten years of consultancy experience, conducting bat research for Oxford University, holder of Natural England personal licences class 17-20 (2015-12871-CLS-CLS, 2015-12872-CLS-CLS) and registered as a consultant able to work under the low ecological impact class licence in England (CL-21) as well as a personal survey licence issued by Natural Resources Wales plus number of personal scientific research bat licences specific to individual projects allowing bat capture, ring marking and specialist work including attachment of radio-transmitters or luminescent markers, as well as holder of Great created newt, Barn owl and Common dormouse survey licences.

5.4 Survey

The daytime inspection and a basic habitat assessment took place on 6th November 2018. The survey aimed to gain sufficient information on the status of habitat and potentially occurring protected wildlife species. Protected wildlife species identified as a potential constraint to the proposed development included bats and nesting passerine birds. The site was also assessed for the potential to support other species of protected wildlife.

5.4.1 Bats

The structure was surveyed using the following methodology:

a) Signs of residency by bat species. This consisted of a slow methodical search for roosting bats and their signs. Droppings on walls, windowsills and in roof space can be used to identify species and scratch marks and staining at roosts and exit holes shows the presence of bats. Similarly, the presence of spider webs at a potential roost entry can often indicate an absence of bats.

- b) An assessment of the potential of the structures to provide a roost either in the summer (maternity) or winter (hibernation).
- c) Detailed inspection of potential roosting features, with the aid of a flexible micro-camera, in order to establish previous use by bats

The interior and exterior of barn were inspected with the aid of a high-powered torch to locate potential roosting sites, discover possible points of egress for bats and detect bats or any signs of bats such as droppings, wear marks, staining and feeding remains.

5.4.2 Birds

The exterior and interior of the barn were inspected during the daytime visit on 6th November 2018 for the presence or potential for presence of bird species, and to locate signs of use such as nests, pellets and/or droppings.

5.4.3 Other Protected Species

The surrounding habitat was inspected for the signs of presence of other European Protected Species and species protected under the UK legislation. Visual inspection was utilized as a method of search for other protected species. The search focused on the signs of potential presence of European otter, Badger, Common dormouse as well as the potential to support reptile and amphibian species. Due to the fact that the surrounding habitat will not be affected by the proposed development and the lack habitats of conservation value in the immediate proximity of the building, no other protected species

of wildlife are likely to form a constraint to the proposed works.

6. Survey Constraints

All parts of the barn were fully accessible. The interior was cluttered and difficult to search. Potential presence of individual bat droppings could have been missed; however, the materials used for the construction of the barn as well as the current condition of the property suggest negligible bat roosting potential.

The survey was conducted outside of the bat active season; however, the evidence of bat presence, particularly if a bat colony occupies a structure, often remains obvious for several seasons.

No bat dusk emergence survey was carried out. This is in line with Bat Surveys for Professional Ecologists (Collins et al., 2016) for site where the bat roosting potential was assessed as negligible.

The survey was conducted outside of the bird nesting season, but similarly to bats, the evidence of past bird presence is often obvious long after the end of the active nesting season.

No other constraints to the survey occurred.

Please be aware that, because the natural environment is dynamic, ecological reports generally have limited period of currency.

TREcS is a scientific practice. Although our staff regularly updates their knowledge of wildlife legislation, we do not specialise in law interpretation. Professional legal advice should always be sought. Any designs, specifications, advice, suggestions, or comments written or verbal relating to construction or supervision of building-related work of any kind are provided for consideration only and under no

circumstances are to be interpreted as provision of design, management or supervision *sensu* the Construction (Design and Management) Regulations 2007 (as amended).

7. Results

7.1 Desk Study

A data search in respect of bats, roof nesting birds and designated areas was undertaken.

There are limited records of several bat species presence confirmed within 5km radius. It is likely these bats were recorded foraging or commuting rather than roosting. The species previously recorded in the area include Soprano pipistrelle (*Pipistrellus pygmaeus*), Natterer's bat (*Myotis nattereri*), and Brown long-eared bat (*Plecotus auritus*).

TREcS database also includes Common pipistrelle (*Pipistrellus pipistrellus*), Whiskered bat (*Myotis mystacinus*), Daubenton's bat (*Myotis daubentonii*) and Lesser horseshoe bat (*Rhinolophus hipposideros*) previously recorded in the surrounding area on unrelated projects.

TREcS database indicated the presence of low importance roosts of individual Soprano pipistrelles to the south-west of the mill, within the 5km radius.

The following protected species of wildlife were previously recorded within 2km from Wegnall's Mill:

- Water vole (Arvicola amphibius), 1.8km north-west
- Hedgehog (Erinaceus europaeus), 1.7km north-west
- Otter (Lutra lutra), 0.5km west
- Common dormouse (Muscardinus avellanaria), 2km west
- Polecat (Mustela putorius), 0.3km west
- Adder (Vipera berus), 2km west

No records of roof nesting birds within 100m from the barn were found; however, the following bird species were recorded within 500m from the site: Long tailed tit (*Aegithalos caudatus*), Yellowhammer (*Emberiza citronella*), Pied wagtail (*Motacilla alba*), Great tit (*Parus major*), House sparrow (*Passer domesticus*), Coal tit (*Periparus ater*), Nuthatch (*Sitta europaea*), Starling (*Sturnus vulgaris*), Blackbird (*Turdus merula*), and Song thrush (*Turdus philomeles*).

Records in the database may be incomplete and lack of presence of certain species in the database should not be interpreted as species absence in the area.

The site does not fall within 5km from any designated Special Area of Conservation (SAC), Special Protected Area (SPA) or Ramsar site.

The nearest SAC is the River Lugg, a tributary to the River Wye, situated approximately 1.8km north of Wegnall's Mill. The River Lugg is a cross-boundary catchment straddling the Welsh-English border flowing eastwards from its source at Pool Hill in Powys, Wales through the towns of Presteigne and Leominster, then flowing south where it reaches its confluence with the River Wye at Mordiford near Hereford. The river shows a good example of a transitional river type, with both upland and lowland river morphologies represented.

The River Lugg is designated as a SSSI and forms part of the River Wye SAC. The Lugg is also bordered by two SSSIs near to its confluence with the River Wye, the Lugg and Hampton Meadows Unit 1 and Unit 2 (both in favourable condition). The Rive Wye SAC is designated with the primary

reason for being a 'watercourse of plain to montane levels with *Ranunculus fluitantis* and *Callitricho-Batrachion* vegetation' under Annex I of the EC Habitats Directive.

Given that the River Lugg is a tributary of the River Wye and forms part of the wider Wye catchment area, this restoration plan will link to the Wye catchment plan being developed by the Wye and Usk Foundation (WUF). The WUF catchment plan will look at all aspects of the catchment and incorporate this Lugg River Restoration Plan (RRP) (and other complementary initiatives for the SSSI/SAC such as the Nutrient Management Plan).

There are no Local Nature Reserves in close vicinity of the site (Magic.gov.uk, 2019).

The proposed development will not have any impact on any designated sites.

The proposed development will not affect any Annex I habitats neither Annex II species. The proposal is restricted to the footprint of the existing hard-standing, no other habitat will be affected.

The proposed development will not impact any designated sites, priority habitats or primary reasons for SAC or SPA selection.

7.2 Bats

All parts of the structure were inspected for signs of presence of bats and assessed for bat roosting potential.

No evidence of bat presence, current or past, was found within the interior of the barn. No bats were present at the time of the survey.

The barn was assessed as negligible bat roosting potential. The wooden cladding walls are falling apart in many places; allowing for a very light and exposed interior unsuitable for bat day-roosting. The roof of the structure is not underlined and there are no bat roosting opportunities in the joinery supporting the structure of the roof.

The barn remains permanently open and accessible to bats that may use it as a sheltered foraging area; however, no evidence of such activity was found.

The surrounding habitat is highly suitable for bat foraging and commuting.

7.3 Birds

Past nesting of commonly occurring passerines was confirmed in the property. Swallows and likely Continental robin were recorded to utilise the structure. An old Swallow nest, located in the apex or the barn, was lined with a fresh (the same season) moss suggesting that it was re-used by another bird species later in the season.

Due to the fact the barns remain permanently open, the potential for repeated nesting of these or other commonly occurring bird species is high. The barn is not suitable for owl nesting.

7.4 Other protected species

Due to the fact that no surrounding habitat will be affected by the proposed development it is considered very unlikely that the proposed work would have any impact on any other European or UK protected species of wildlife. The close surrounding is formed by hard-standing, closely mown lawn, and a deciduous woodland with aa stream that is not to be affected by the proposed works.

8. Discussion and Recommendations

An ancillary barn currently serving as storage on the grounds of Wegnall's Mill was surveyed in order to provide information on wildlife species potentially present within or in the close surroundings of the building as well as the potential habitats of ecological value in proximity of the property.

The external and internal inspection of the barn resulted in allocating a negligible bat roosting potential due to the construction of the barn and materials used as well as the fact the wooden cladding is largely dilapidating allowing light in the interior and leaving the barn exposed to the elements.

Although no mitigation or compensation measures are compulsory, it would be beneficial for the enhancement of the biodiversity of the surrounding area if a bat roosting box, suitable for general purpose, was installed onto the tree to the barn, ideally facing west, 4-5m high in the unlit area. An example of a suitable box would be Schwegler 2F or 2FN.

The surrounding area is highly suitable for bat commuting and foraging. Bat species previously recorded in the area (on unrelated projects) included Lesser horseshoe bat, known to be a light sensitive species. For this reason, it is important to treat additional external lighting on site, should it be at all necessary, with respect to bat commuting routes and foraging areas.

Should the need for additional external lighting arise, please consider the recommendations of the Bat Conservation Trust (2011) regarding additional external artificial lighting on site:

- Do not over-light. This is a major cause of obtrusive light and is a waste of energy. Use only the minimum amount of light needed for safety. There are published standards for most lighting tasks, adherence to which will help minimise upward reflected light.

- Eliminate any bare bulbs and any light pointing upwards. The spread of light should be kept near to or below the horizontal.

- Use narrow spectrum bulbs to lower the range of species affected by lighting.

- Use light sources that emit minimal ultra-violet light. Insects are attracted to light sources that emit ultra-violet radiation.

- Reduce light-spill so that light reaches only areas needing illumination. Shielding or cutting light can be achieved through the design of the luminaire or with accessories, such as hoods, cowls, louvers and shields to direct the light.

- Reduce the height of lighting columns. Light at a low level reduces ecological impact. However, higher mounting heights allow lower main beam angles, which can assist in reducing glare.

- For pedestrian lighting, use low level lighting that is directional as possible and below 3 lux at ground level.

- Limit the times that lights are on to provide some dark periods for wildlife.

- Use lighting design computer programs and professional lighting designers to predict where light spill will occur.

Mitigation for the loss of swallow and other small passerine birds' nesting places will be necessary, please install two swallow nesting bowls under the eaves of the barn, prior to the next bird nesting season, ideally to the north and east aspect close to the hedgerow. Bird nesting season lasts generally

from March to August. No.10 Schwegler swallow nest is an example of a suitable bowl to be used. In addition to that, provide 3 general purpose small passerine nest boxes, such as Schwegler 26-32mm entrance.

Historic evidence of otter and water vole in the surrounding area triggers the need for reasonable avoidance measures despite the fact no evidence of otter neither water vole presence was found on site or in the close surroundings.

The following **Reasonable Avoidance Measures to prevent harm to potentially present otters and water voles** will be adhered to during the construction phase of the proposed development:

- Working areas will be limited to the surroundings of the existing structure and will not extend to the active branch of the Hindwell Brook
- Contractors will be made aware of the possibility of otter and water vole presence in close proximity of the stream
- Night working and working around dusk and dawn should be avoided. If this is not practical, no artificial lighting must be used adjacent to or directed towards the stream
- Any excavations must be backfilled at the end of each working day. Should this prove impractical, an escape ramp must be provided to allow egress for any animals that may be trapped in the excavations. The ramp should be positioned at 45° angle.
- Appropriate pollution prevention measures must be implemented to protect the nearby watercourse from leakages of fuels or lubricants as well as from siltation and run off.

Escape ramp in all excavations open over night will also prevent entrapping of potentially present hedgehogs, known to be historically present in the surrounding area. Hedgehogs often fail to find suitable resting places and installation of an artificial hedgehog habitat into the boundary hedgerow would greatly benefit the biodiversity of the area. A suitable shelter is represented by 'Hogitat hedgehog house' available from NHBS and other suppliers.

In addition, follow general recommendations to provide a 'hedgehog friendly space', including:

- Cover drains and holes and place bricks at the side of ponds to give hedgehogs an easy route out. Cover swimming pools overnight and when not in use.
- Check for hedgehogs before using strimmers or mowers, particularly under hedges where animals may rest. Check compost heaps for nesting hogs before forking over.
- Build bonfires as close to time of lighting as possible and check them thoroughly before lighting.
- Remove sports or fruit netting when not in use to prevent hedgehogs becoming entangled and getting injured.
- Slug pellets can poison hedgehogs and should only be used as a last resort. Instead try using one of many natural alternatives, like sprinkling crushed eggshells or coffee grounds around the plants you need to protect. If you have to use pellets, place them under a slate which is inaccessible to hedgehogs (RSPCA, 2019).

No other protected species of wildlife are likely to be affected by the proposed development.

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