

Ecological Appraisal and Impact Assessment at

Wynona, Station Road,

Rossett, Wrexham

LL12 0HE

Grid Ref. SJ 3631 5713

On 23rd August and 21st October 2020

Report completed 18th November 2020
Ref: WYN280820

Survey by:
Susan Worsfold BSc (Hons) ACIEEM
Lyngarth,
Ellesmere Road,
St. Martins,
Oswestry,
Shropshire
SY11 3HT

01691 772310
or 07752 105600
s.worsfold@hotmail.co.uk

Requested by:
Blueprint Architectural Services
Office 3K4,
Redwither Business Tower,
Wrexham.
LL13 9XT

Tel: 01978 356500
www.blueprintarchitectural.com

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1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at Wynona, Rossett, Wrexham and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme entails the demolition of the building and construction of a new dwelling.

The building and adjacent land were examined to establish the presence of or evidence of use by protected species of animals. A visual inspection was carried out to assess the potential or actual use by bats, of the interior and exterior of the building. One dusk emergence survey was carried out to determine use by bats. No bats were found to be using the building.

Impacts during the development should be low provided that no bird nests are constructed or occupied while work is taking place. If birds are building nests or any are occupied at any stage of the development work in that area must stop until the young have left the nest. There is not considered to be any significant threat to the conservation status of bats or danger of harm to individuals as the building was not being used by roosting bats. However precautions must be taken to avoid harm to any transient bats which may roost there in future. No pointing or repairs of any gaps or crevices should take place which cannot be seen to be empty to minimise the possibility of incarcerating bats.

If bats are found at any stage of the development then work in that area must stop and a licensed bat worker contacted for advice.

Reasonable avoidance measures should be taken with regard to amphibians and reptiles.

Government guidance should be followed regarding non native invasive species.

Hedges should not be removed nor trees pruned between the beginning of March and the end of September to avoid destruction of nests.

There is not considered to be any significant impact on any protected species or habitat as long as the recommended mitigation measures are followed.

2. Introduction

Susan Worsfold BSc (Hons) ACIEEM is an experienced wildlife surveyor, licensed bat and great crested newt worker and voluntary bat roost visitor. Registration number CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and registration number CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (Natural England) and S086005/1 (Natural Resources Wales);

Licensed great crested newt worker, registration number 2016-19947-CLS-CLS (NE) and S086057/1 (NRW)

This report was commissioned by Blueprint Architectural Services, Wrexham for the clients.

The site, at Wynona, Rossett, Wrexham, is a single story corrugated steel building surrounded by overgrown domestic garden.

The proposed scheme involves demolition of the building and construction of a larger dwelling.

The purpose of the report is to identify and address any significant ecological effects which are likely to occur as a result of the proposed development. This is necessary to comply with local planning policy and government legislation and avoid any offence being committed. Also, to describe any compensation, mitigation and enhancement measures which should be taken.

3. Methodology

3.1. Scope of the Assessment

The report incorporates an preliminary bat roost and nesting bird assessment, while also searching for use or potential use by any rare, threatened, endemic and non-native invasive species which might be associated with such a site in accordance with:

The Conservation of Habitats and Species Regulations 2017 and listed in:

Schedule 2. European protected species of animals

Schedule 5. European protected species of plants

The protection of Badgers Act 1992

Protected species which might be associated with such a site include bats, owls and other breeding birds.

The area around the site might be used by badgers, dormice, amphibians and reptiles, and might contain protected plant species.

One bat activity survey was carried out in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016).

3.2. Desk Study

Wrexham Planning Portal was consulted for a review of previous ecological surveys carried out in the area. Magic Maps was consulted for the presence of designated sites and protected habitats. The nearest designated site is Marford Quarry (SSSI) 40 m west. This is an area of broadleaved woodland notable for its biodiversity of invertebrates and plants.

3.3. Field Survey

The building was examined to establish the presence of or evidence of use by protected species of animals. A risk assessment was made before entering the building. A visual inspection was carried out to assess the potential or actual use by bats, of the interior and exterior of the building. It was searched systematically for any signs of bats, including droppings, rub marks and urine stains at entrances to roosts and insect remains, such as moth or butterfly wings. Crevices were checked where possible.

Powerful lamps (LED Lenser H14) were used for examination of interiors and under eaves. Binoculars were used to examine parts which were not otherwise accessible. Photographs were taken of all areas and those of relevance are shown in the appendices.

The preliminary assessment and dusk emergence survey were carried out on 23rd August by Susan Worsfold (SW) and Amelia Bailey (AB) in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016).

Frequency division detectors were used to record any bat sounds around the building for later analysis on the computer. These were Peersonic RPA3's.

A further visit was made on 21st October 2020 to assess the garden.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Marford Quarry (SSSI) 1 km south west.

4.2 Habitats

Site: Residential but semi rural location on the outskirts of the village of Rossett, 4.5 km north east of the town of Wrexham. The building is surrounded by domestic garden which has been left unmanaged for some time. It is single storey with a single story porch to the south side, all with pitched roofs. The roofs and walls are all corrugated steel lined with wood. There is a brick chimney. Windows are glazed and intact, with wood frames which are intact. The door is wood and glass, all intact. There are wooden verge boards at each gable end. The garden has become colonised by a variety of plant species, notably Japanese knotweed and Himalayan balsam, both invasive, non-native species. The north boundary cannot strictly be called a hedge as it consists mainly of bramble and ivy, with some hawthorn and privet. The remaining boundaries are fenced. Adjacent land: There is no significant woodland within 500 m although there are several trees and areas of small groups of trees.. The river Alyn is adjacent, to the south. There are no ponds apparent within 500 m. There are several hedgerows surrounding the site.

4.3 Species and Species Groups

Plants

(<i>Acer pseudoplatanus</i>)	Sycamore
(<i>Alliaria petiolata</i>)	Garlic mustard
(<i>Aquilegia</i> sp.)	Aquilegia
(<i>Cirsium arvense</i>)	Creeping thistle
(<i>Cratageous monogyna</i>)	Hawthorn
(<i>Fallopia japonica</i>)	Japanese knotweed
(<i>Fraxinus exelsior</i>)	Ash
(<i>Geranium robertianum</i>)	Herb robert
(<i>Geum urbanum</i>)	Wood avens
(<i>Hedera helix</i>)	Ivy
(<i>Heracleum sphondylium</i>)	Common hogweed
(<i>Impatiens glandulifera</i>)	Himalayan balsam
(<i>Jacobaea vulgaris</i>)	Ragwort
(<i>Lolium perenne</i>)	Perennial ryegrass
(<i>Pentaglottis sempervirens</i>)	Green alkanet
(<i>Ranunculus repens</i>)	Creeping buttercup
(<i>Rosa</i> sp.)	Rose
(<i>Rubus fruticosus</i>)	Bramble
(<i>Rumex</i> sp.)	Dock
(<i>Taraxacum</i> sp.)	Dandelion
(<i>Urtica dioica</i>)	Common nettle

Amphibians and Reptiles

None seen during the survey. There are no ponds within 500 m so there is not considered to be any threat of harm or effect on the conservation status of great crested newts.

Birds

No bird nests were found in or on the building or on site. No evidence of use by owls was seen in the building and it was not considered suitable for use by them.

Bats

There was considered to be low potential for use of the building by bats. The site is suitable for use by foraging and commuting bats. No evidence of use of the building as a roost or resting place by bats was found.

Badgers

There were no badger setts, tracks or latrines found on the site or within 30 m of the site.

No species of conservation value or Schedule 9 species were seen on site.

5. Description of the Development

The proposed scheme involves demolition of the existing building and construction of a larger dwelling, with associated access and parking.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact Marford Quarry due to the small scale of the development and distance from the site.

Habitats:

No priority habitat is affected by the proposal and no net loss of potential roosting or nesting sites should occur if enhancements are provided. A buffer zone of 20 m should be maintained between the house and the river and no lighting should be directed towards the river to avoid disturbance of any animals using it for foraging and commuting.

Species:

Plants

Japanese knotweed and Himalayan balsam are invasive, non-native species which can be difficult to eradicate. Government guidance on these can be found at

https://ec.europa.eu/environment/nature/invasivealien/index_en.htm

Hedges should not be removed nor trees pruned between the beginning of March and the end of September to avoid destruction of nests.

Birds

The impacts which the proposed work might have on birds will be small, providing that no nests are occupied or being built at the time the work is done. If birds should gain access to the new dwelling and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Bats

There is not considered to be any threat to the conservation status of bats or danger of harm to individuals as the building was not being used by roosting bats. However, it is possible that transient bats may temporarily roost in the building in the future, therefore precautions must be taken. No pointing or repairs of any gaps or crevices should take place which cannot be seen to be empty to minimise the possibility of incarcerating bats. If bats are found at any stage of the development then work in that area must stop and a licensed bat worker contacted for advice.

A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Reptiles and amphibians

Is is highly unlikely that the development would harm any individual GCN, or affect their conservation status. However, there is some possibility of reptiles and amphibians using the site for commuting purposes, therefore reasonable avoidance measures should be taken.

Residual Effects

No significant residual effects anticipated.

7. Compensation

The dilapidated section of hedge at the north boundary should be replaced by a hedge comprising at least three native species, such as hazel, holly, hawthorn, blackthorn, field maple or oak.

8. Enhancement Recommendations

A bat box e.g. Schwegler 1FF to be fitted externally to the new building/s. Further information is given in the bat box information pack available at <http://www.bats.org.uk/index.php>.

Bat boxes should be placed in a south east to south west facing position if possible.

One woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow and one artificial swallow nest to be incorporated into the new building/s.

House Sparrow Terrace - Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves of buildings or incorporated into walls. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm. Also suitable for tits, redstarts and spotted flycatchers. Place at least 2 m from the ground.

Swallow nests - H110mm x W250mm x D140mm. This should be placed at the eaves, leaving a gap of at least 6 cm between the top of the nest and the roof.

Planting of at least one native tree should take place in the garden, e.g. bird cherry (*Prunus padus*), wild cherry (*Prunus avium*), crab apple (*Malus sylvestris*), rowan (*Sorbus aucuparia*), hazel (*Corylus avellana*), *Amelanchier laevis*, spindle (*Euonymus europaeus*), alder buckthorn (*Frangula alnus*), strawberry tree (*Arbutus unedo*) holly (*Ilex aquifolium*) or hawthorn (*Crataegus monogyna*)

9. Ecological Constraints

The survey was undertaken rather late in the season, however weather conditions were good and there was not considered to be any potential for a maternity roost.

10. Monitoring

None recommended

11. Conclusions

It is not considered that bats are using the building. If the recommended mitigation and enhancement measures are taken the overall ecological impacts of the proposed development will be low due to its small scale and lack of evidence of any rare or threatened species or priority habitat.

12. Bibliography

Bat Conservation Trust available at: <http://www.bats.org.uk>

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at:
<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Collins J. (Ed) (2016) *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)*. The Bat Conservation Trust, London

Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora available at: jncc.defra.gov.uk

Google Maps available at: <https://maps.google.com/maps>

Magic Maps available at: <http://magic.defra.gov.uk>

Mitchell-Jones, A. J. and McLeish, A. P. (2004) *Bat Worker's Manual*, Peterborough: Joint Nature Conservation Committee

Natural Resources Wales available at: <https://naturalresources.wales/?lang=en>

UK BAP Priority Habitats available at: jncc.defra.gov.uk

Wildlife and Habitat Conservation available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

Wrexham Council Planning Portal available at:
<http://planning.wrexham.gov.uk/Planning/lg/GFPlanningSearch.page>

Government Guidance on Invasive Alien Species found at:
https://ec.europa.eu/environment/nature/invasivealien/index_en.htm

Appendix 13.1: Activity Surveys

23/8/20

<i>Observer or area</i>	<i>Equipment</i>
Susan Worsfold (SW)	Peersonic RPA3
Amelia Bailey (AB)	Peersonic RPA3

Bats recorded:

Common pipistrelle (*Pipistrellus pipistrellus*)

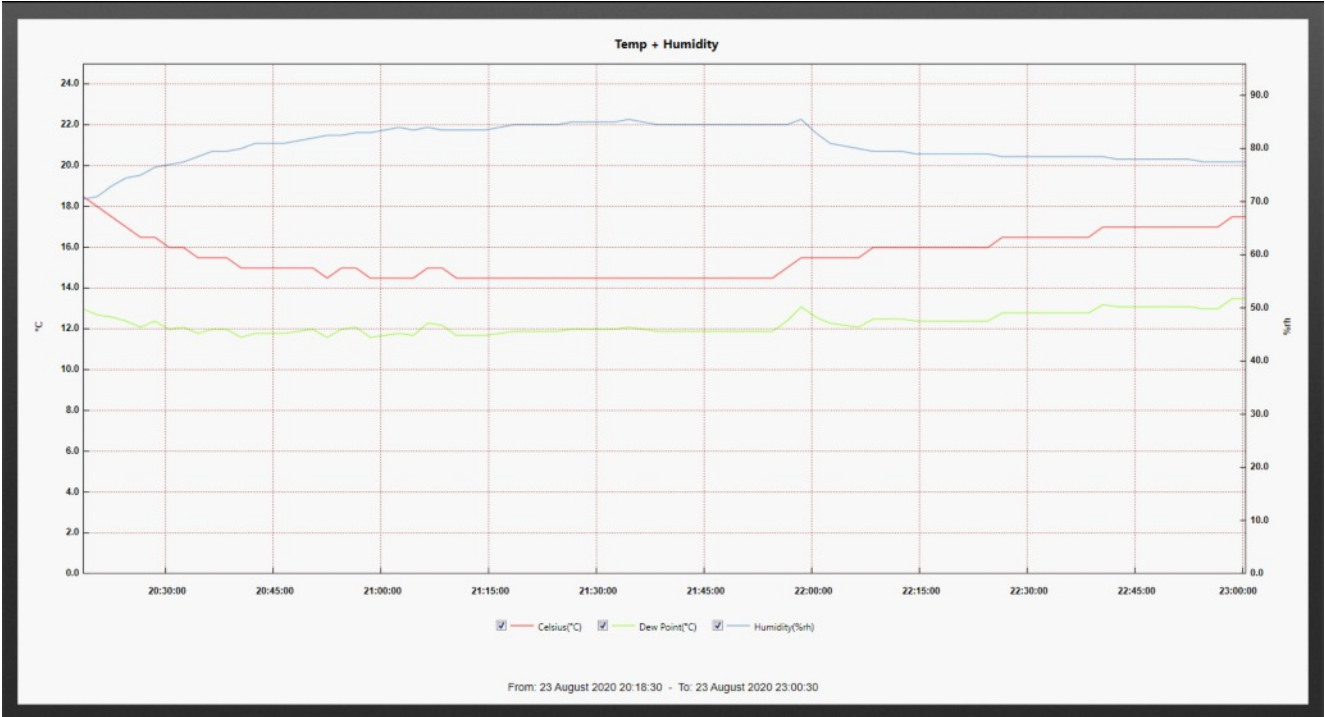
Soprano pipistrelle (*Pipistrellus pygmaeus*)

Noctule (*Nyctalus noctula*)

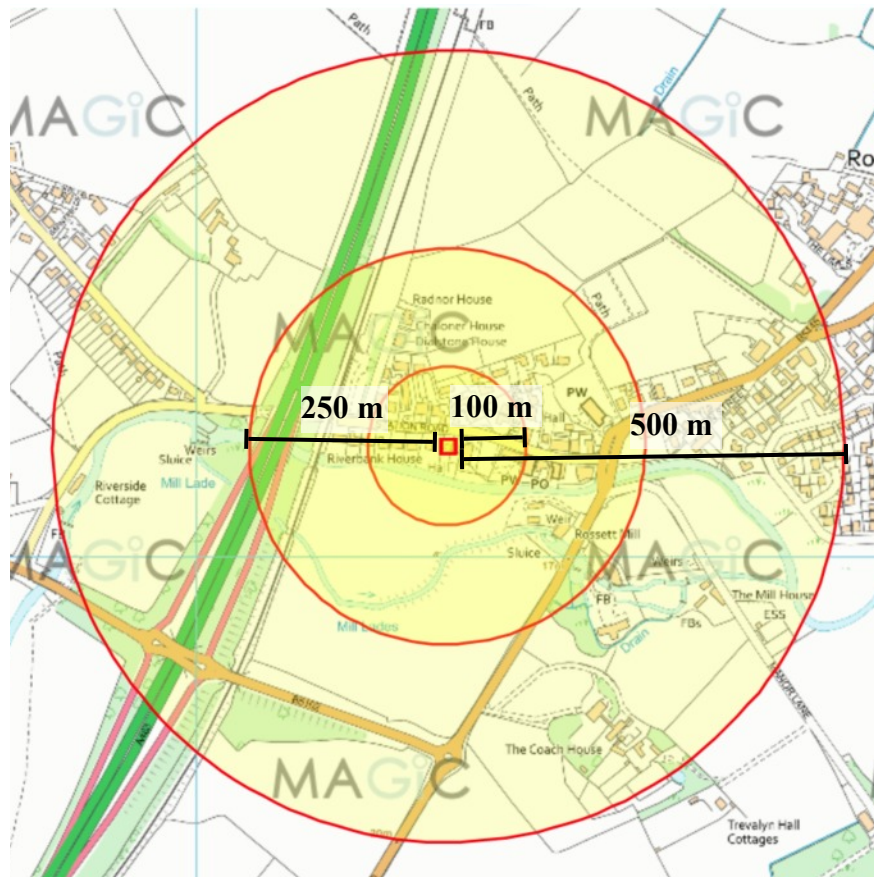
<i>Observer or Area</i>	<i>Time</i>	<i>Observation</i>	<i>Identification from visual or correlation with sonograms</i>
SW	20.48	Bat flying south to north along west side of house	Common pipistrelle
SW	20.49	Bat flying over building north to south	Common pipistrelle
SW	21.06	Bat flying over building north to south	Soprano pipistrelle
AB	20.47	Bat flying north to south and back again	Common pipistrelle
AB	20.50	Bat foraging near house	Common pipistrelle
AB	20.55	Two bats flying in south garden	Soprano pipistrelle
AB	20.55-21.20	Foraging activity every few minutes near the house	Soprano and common pipistrelle

Appendix 13.2: Survey Conditions

Date	Sunset/ Sunrise	Start Time	End Time	Temp. Start °C	Relative Humidity Start %	Temp. End °C	Relative Humidity End %	Cloud %	Wind 0-6
23/08/20	20:20	20:00	22:00	17	74	14	84	8	0



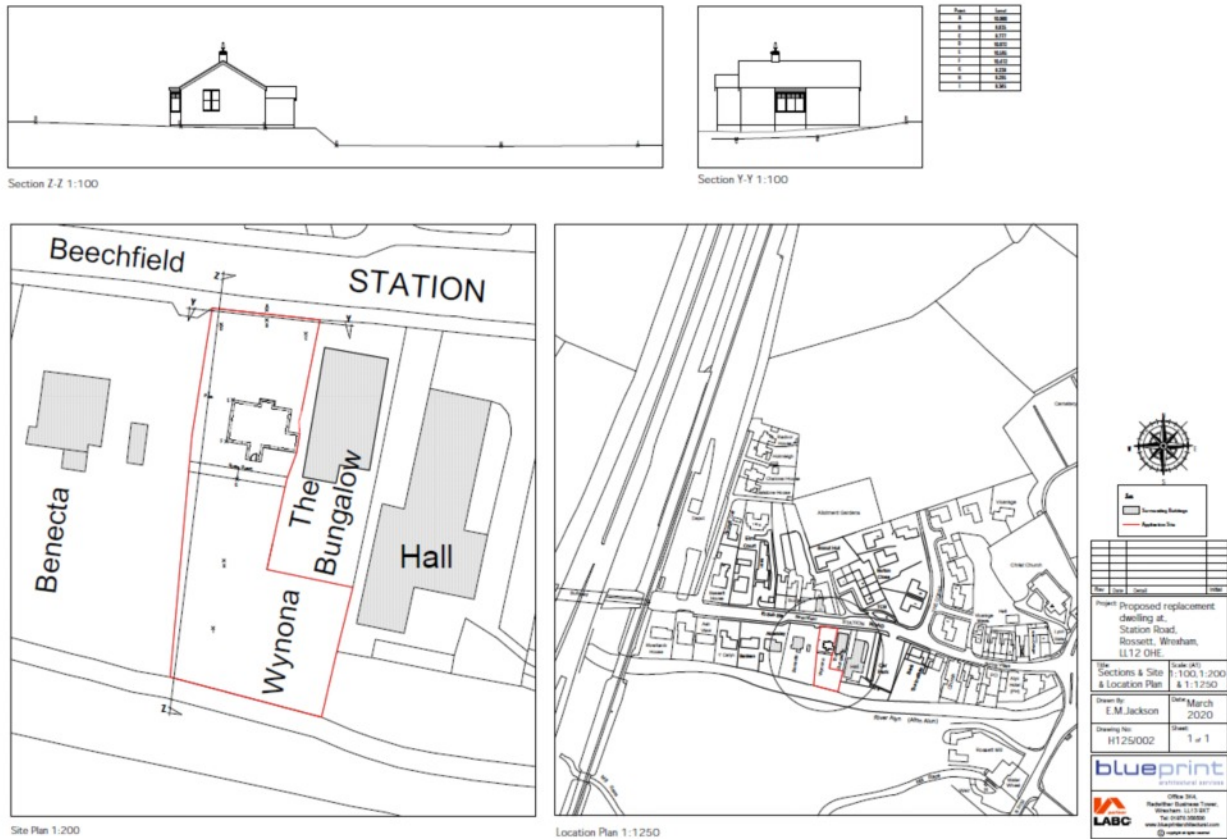
Appendix 13.3: Location Map, Designated Sites and Zones of Influence



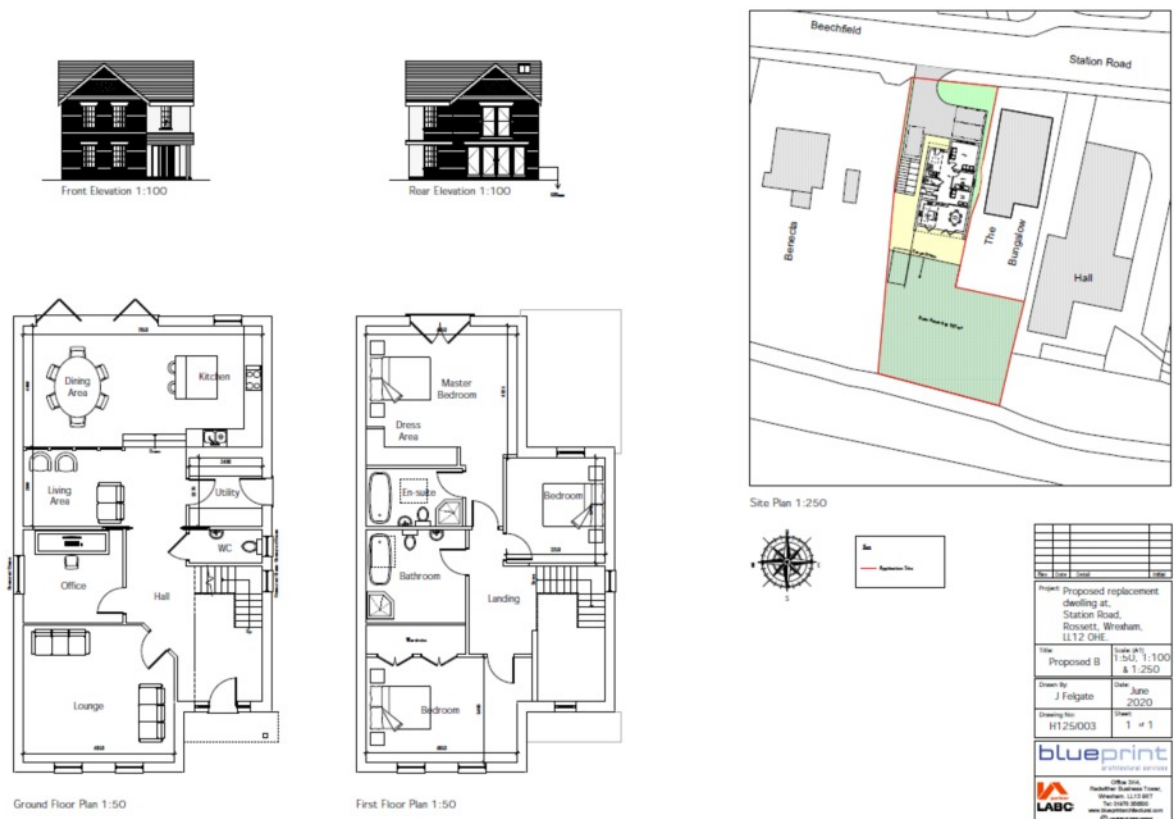
Appendix 13.4: Aerial Photograph



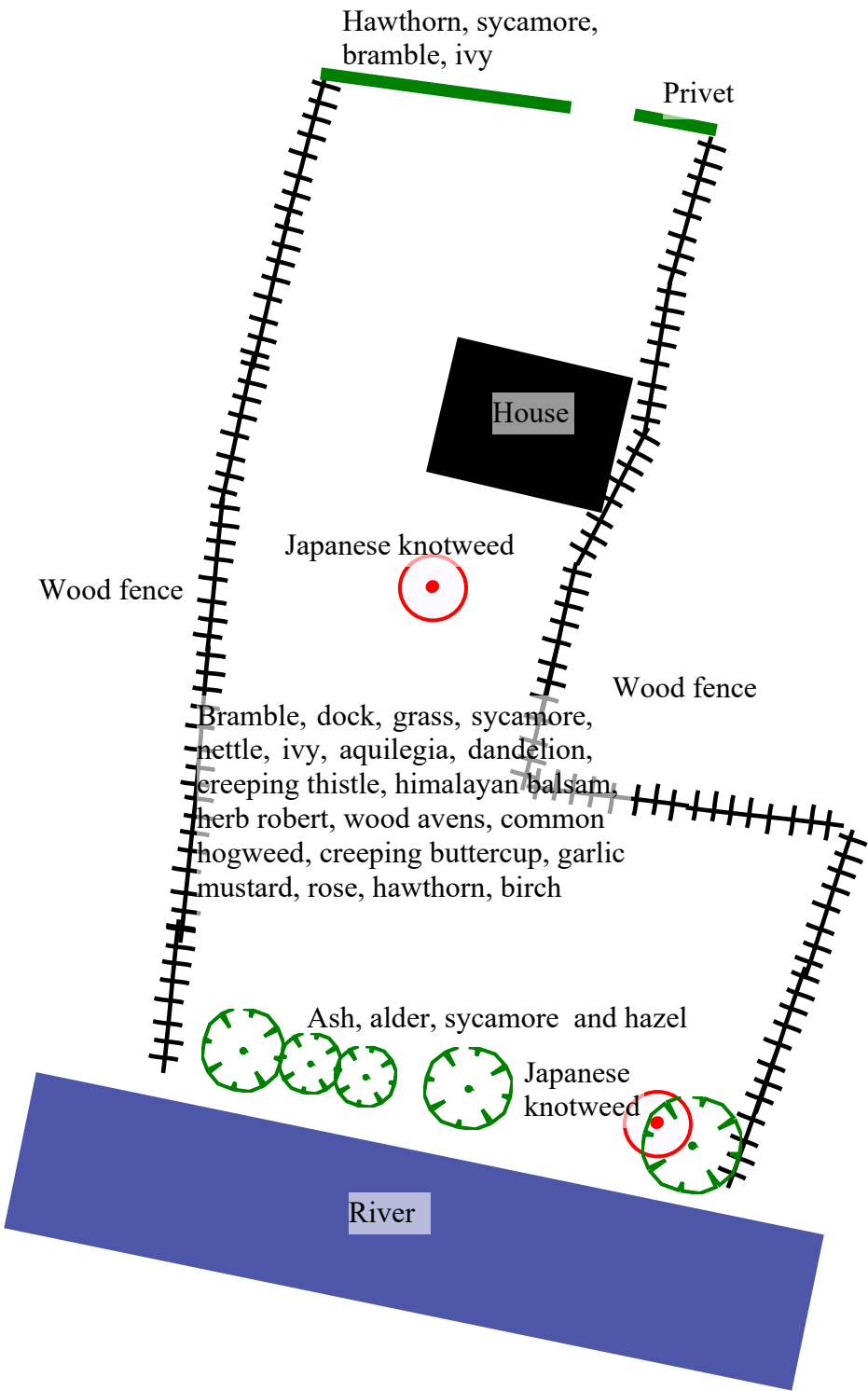
Appendix 13.5: Existing Site and Location Plan



Appendix 13.6: Proposed Plan



Appendix 13.5: Survey Diagram



Appendix 13.7: Photographs of the Site



House interior - taken by owner Ian Humphries



House interior - taken by owner Ian Humphries



House interior - taken by owner Ian Humphries



View from the north

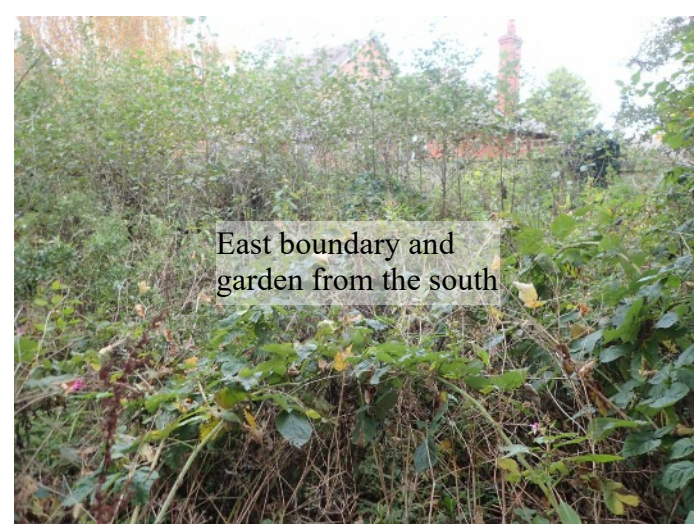


South side of house



West gable end and south side of house

Appendix 13.7: Photographs of the Site



Appendix 13.6: Legislation Relating to Bats

All species of bats in the UK are European Protected Species (EPS). It is against the law to damage or destroy a bat's breeding site or resting place (known as a roost), or deliberately to capture, kill, injure or disturb a bat

Bats are the only mammals which can fly. They are warm blooded, they suckle their babies and are intelligent, social animals. British bats feed only on insects, of which they consume vast numbers to sustain their energetic lifestyles. A pipistrelle bat can eat up to 3000 midges in a single night!

We have 12 species of bat breeding in Wales. Many of these have suffered severe declines, not just in Britain but throughout Europe.

All British bat species are protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations'. Bats have a unique relationship with humans, sometimes sharing our homes for part of the year. For this reason, Natural Resources Wales (NRW) deals with many hundreds of bat enquiries each year from householders.

Under the Habitats Regulations, it is an offence if you:

deliberately capture, injure or kill any wild animal of an EPS
deliberately disturb wild animals of any such species
damage or destroy a breeding site or resting place of such an animal
Disturbance includes, but is not limited to, any disturbance which is likely:

1. to impair their ability –
to survive, to breed or reproduce, or to rear or nurture their young, or
in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
2. to affect significantly the local distribution or abundance of the species to which they belong.

Defra and the Welsh Government will publish a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

There are other offences relating to possession, transport and sale.

NRW issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

If you are a householder and have concerns about bats at your property (other than queries related to planning applications or a development), contact the NRW Enquiry Line for advice, telephone 0300 065 3000

Appendix 13.7: Legislation Relating to Birds

All wild birds, their nests and eggs are protected. It is an offence to intentionally:

kill, injure or take any wild bird,
take, damage or destroy the nest of a Golden Eagle, White-tailed Eagle or Osprey (even if disused),
take, damage or destroy the nest of any wild bird whilst it is in use or being built,
take, damage or destroy an egg or any wild bird,
possess any live or dead wild bird or the egg of any wild bird, or any derivative

Many rare birds are listed on Schedule 1, which makes it an offence to intentionally or recklessly:

disturb a Schedule 1 bird while it is building a nest or is in, on or near a nest containing eggs or young; or
disturb dependent young of such a bird

Natural Resources Wales (NRW) issues licences for specific purposes, so that you can undertake legitimate work without breaking the law. See 'Bird licensing' for more information.