

Ecological Appraisal and Impact Assessment at

The Old Co-Op, Tenth Avenue,

Llay, Wrexham

LL12 0LL

Grid Ref. SJ 3332 5535

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Contents

Section	Title	Page
1	Summary	3
2	Introduction	4
3	Methodology	4
3.1	Scope	4
3.2	Desk Study	5
3.3	Field Survey	5
4	Baseline Ecological Conditions/Results	6
4.1	Designated Sites	6
4.2	Habitats	6
4.3	Species and Species Groups	6
5	Description of the Development	7
6	Assessment of Effects and Mitigation Measures	7
7	Compensation	9
8	Enhancement Recommendations	9
9	Ecological Constraints	9
10	Monitoring	9
11	Conclusions	9
12	Bibliography	10
13	Appendices	11
13.1	Activity Surveys	11
13.2	Survey Conditions	12
13.3	Location Map Showing Designated Sites and Zones of Influence	13
13.4	Aerial Photograph with Location of Observers and Detectors	13
13.5	Photographs	14
13.6	Legislation Relating to Bats	16
13.7	Legislation Relating to Birds	17
13.8	Legislation Relating to Great Crested Newts	

1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at an old Co-op in Llay, 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 4-6 residential apartments.

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 due to the close proximity of the country park.

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 an old Co-op, Llay, Wrexham, is a single storey brick and breeze block building with side extensions surrounded by hard standing and a small area of scrub.

The proposed scheme involves demolition of the building and construction of 4-6 residential apartments.

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 28th August by Susan Worsfold (SW) and Anne Thackwell (AT) 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.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Llay Bog (SSSI) 1 km west.

The site is 100 m from Alyn Waters Country Park, where adders and great crested newts have been recorded (http://old.wrexham.gov.uk/assets/pdfs/countryside/alyn_waters_walks.pdf) However, the Park pond is 1.5 km from the site.

4.2 Habitats

Site: Residential location in the ex mining village of Llay, 2 km north of the town of Wrexham. The building is surrounded by hard standing, with a small area of scrub on a steep slope on the south side. It is single storey with single story extensions to the east and west sides, which have flat roofs. The roof of the main building is of wood with a felt external covering and a steel frame. There are no windows, the doors are of steel and the rear one is wood and glass, there is one small window, glazed and intact. There are wooden verge boards at each gable end.

Adjacent land: The nearest area of woodland is 50 m west, Marford Quarry. The river Alyn is 440 m west. There are no ponds apparent within 500 m. There are short sections of domestic hedgerows surrounding the site which are closely managed.

4.3 Species and Species Groups

Plants

The only vegetation to be affected is a small area of scrub to the rear (south) of the building.

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. There was limited shelter and foraging potential. Although adders have been recorded near the site the site is not at all attractive to them.

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 4-6 apartments, detailed plans to be finalised. It is presumed that the small area of scrub on a steep slope to the rear will be removed.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact on Llay Bog 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.

Species:

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 apartments 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

It 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 due to the close proximity of the country park where adders, GCN and other species have been recorded.

Residual Effects

No significant residual effects anticipated.

Reasonable Avoidance Measures with Regard to Great Crested Newts

It is a criminal offence to harm a great crested newt.

Great crested newts (GCN) spend most of their time on land, returning to still water only to breed once they are mature at about 3-4 years of age.

They may travel more than kilometre from their breeding pond.

They move about mostly at night, and by day creep underground or beneath shelter such as stones or logs.

They hibernate during the winter, which is generally from the beginning of November until late March, depending on the weather. Hibernation is underground in burrows made by other small animals or beneath substantial cover such as large stones or piles of logs.

1. Any vegetation should be kept below 10 cm in order to make it less attractive to GCN and other small animals.
2. Any trenches should have a ramp of earth at each end to enable any animals to escape. All trenches must be inspected carefully before infilling, and any animals carefully removed and removed from the area to a place of safety.
3. Any rubble which is present on site is a potential refuge for GCN. Building materials should be stored clear of the ground (say, on pallets) so as to avoid crushing any animals which might seek refuge under them, when the materials are lifted.
4. Any open pipework should be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.
5. Any excavated material which is not replaced on the same day should either be removed from the site or stored on a hard surface and covered with an impermeable membrane, such as a plastic sheet or tarpaulin, and the edges of the sheet secured so that no amphibians can gain access.
6. If any great crested newt is discovered in the area of the work, then work in that area must stop and a licensed great crest newt worker contacted immediately for advice.

7. Compensation

None considered appropriate.

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.

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. The potential for bats was considered to be very low and this was borne out by the almost complete lack of bat calls, and none seen during the survey.

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/>

Cheshire East Planning Portal available at: <http://planning.cheshireeast.gov.uk/ApplicationSearch.aspx>

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

Country Park Walks Leaflet available at:
http://old.wrexham.gov.uk/assets/pdfs/countryside/alyn_waters_walks.pdf

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>

Appendix 13.1: Activity Surveys

28/8/20

<i>Observer or area</i>	<i>Equipment</i>
Susan Worsfold (SW)	Peersonic RPA3
Anne Thackwell (AT)	Peersonic RPA3

Bats recorded:

Common pipistrelle (*Pipistrellus pipistrellus*)

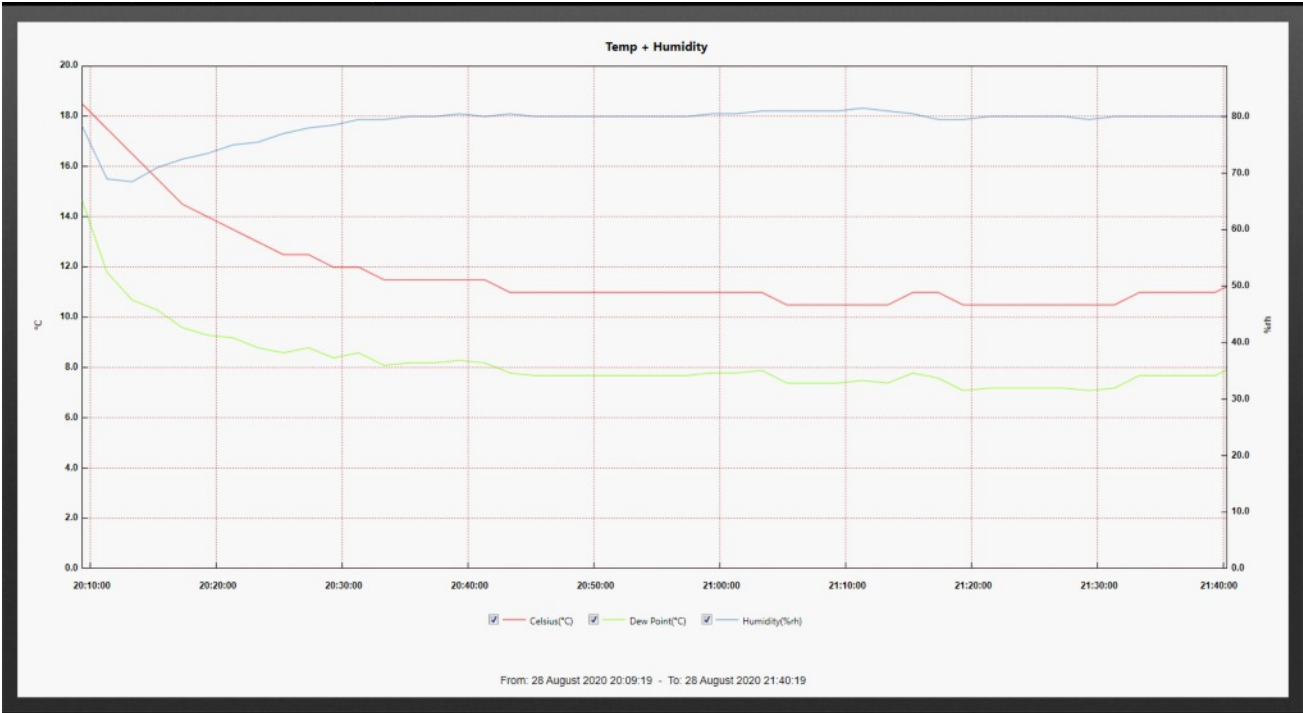
Time: 20.45; *Location:* both stations

Subsequently: None

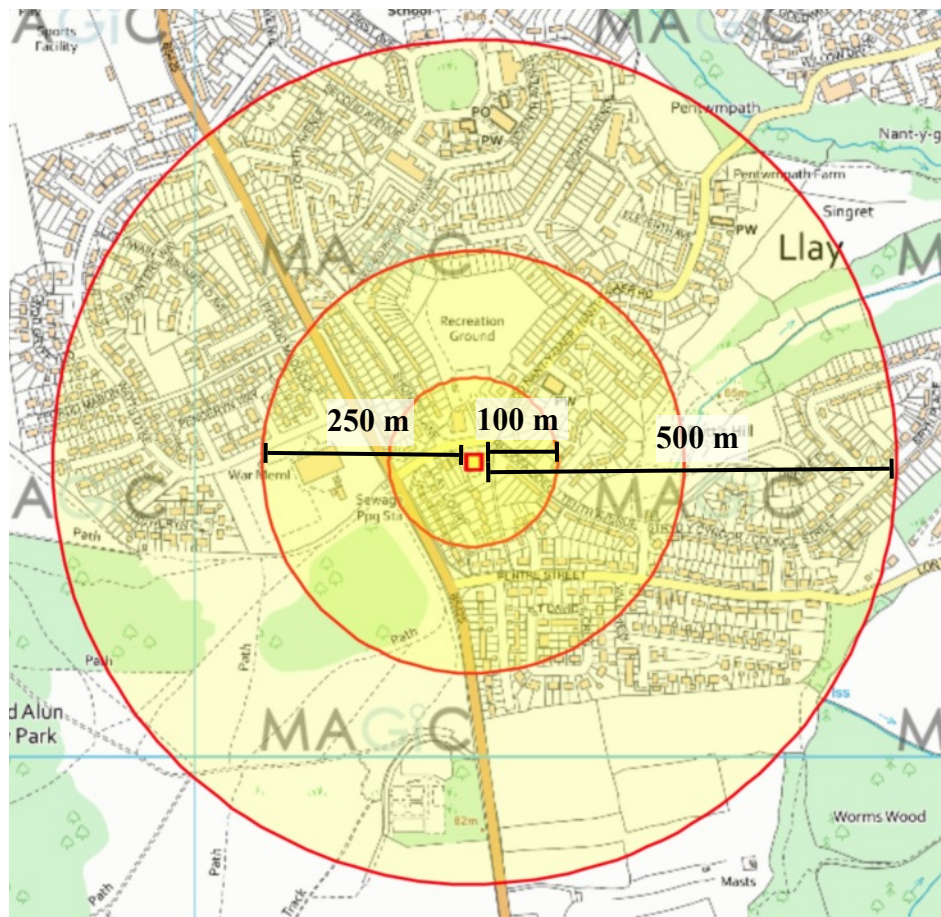
<i>Observer or Area</i>	<i>Time</i>	<i>Observation</i>	<i>Identification from visual or correlation with sonograms</i>
		No bats seen at either station for the duration of the survey	

Appendix 13.2: Survey Conditions

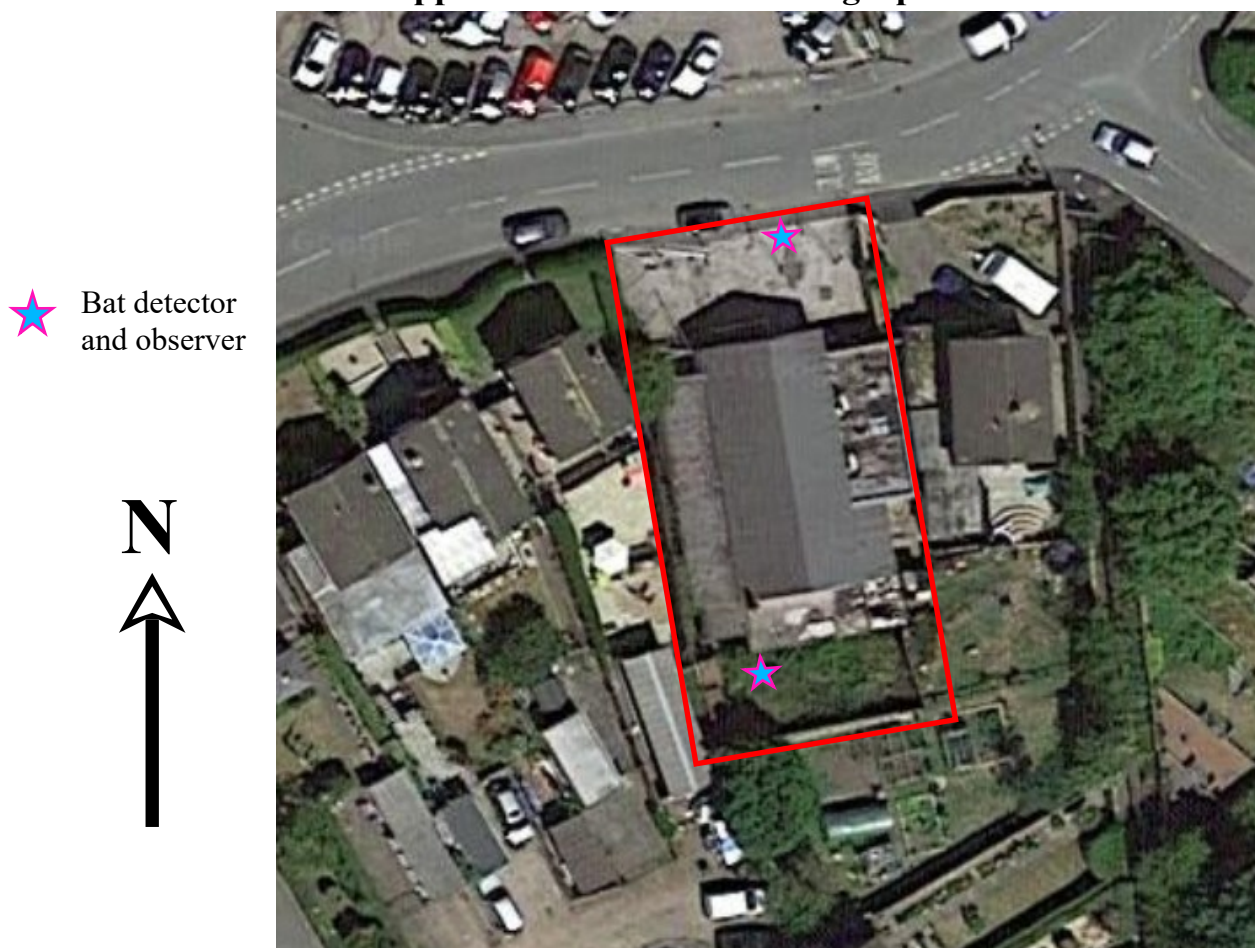
Date	Sunset/ Sunrise	Start Time	End Time	Temp. Start °C	Relative Humidity Start %	Temp. End °C	Relative Humidity End %	Cloud %	Wind 0-6
28/8/20	20.1	19.50	21.40	14	69	10	79	30	1



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



Appendix 13.4: Aerial Photograph



Appendix 13.5: Photographs of the Site



View from the north west



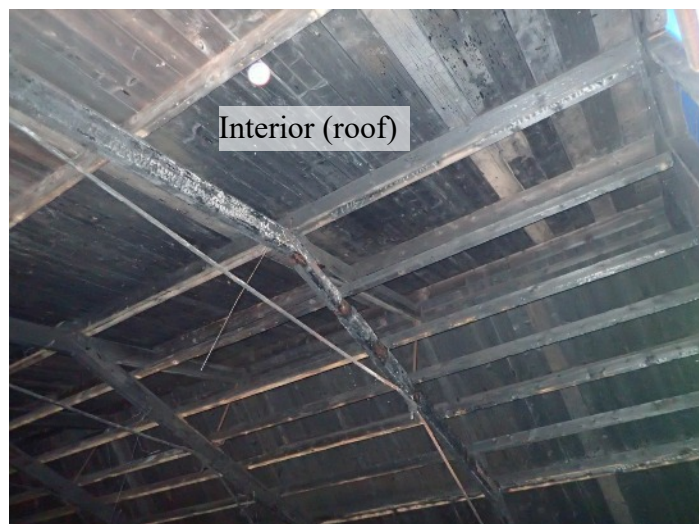
View from the north (eastern extension)



View from the south west



View from the south east



Interior (roof)



Interior from the south west

Appendix 13.5: Photographs of the Site

Interior - various rooms



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.

Appendix 13.8: Legislation Relating to Great Crested Newts

Wales is home to six amphibian species. They need fresh water in which to lay their eggs or spawn and enough suitable habitat nearby to spend the rest of their year. They have declined in recent decades as ponds have disappeared or become polluted or acidified. Pond restoration and creation (even in gardens) is a great help to amphibian conservation.

All amphibian species spend a large part of their year foraging on dry land, and they need sheltered places to hibernate. Hedgerows and other areas of semi-natural habitat are vital for their survival.

UK legislation:

The most common species are protected from sale under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are:

Common frog, *Rana temporaria*

Common toad, *Bufo bufo*

Palmate newt, *Triturus helveticus*

Smooth / common newt, *Triturus vulgaris*

The legislation protects them from being sold or offered for sale to protect them from exploitation in the pet trade or laboratory use.

European legislation:

Our rarest amphibians are protected under the Conservation of Habitats and Species Regulations 2017 (known as 'the Habitats Regulations'). The Habitats Regulations lists the following amphibian European Protected Species (EPS):

great crested (or warty) newt, *Triturus cristatus*

natterjack toad, *Bufo calamita*

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,

deliberately take or destroy the eggs of such an animal, or

damage or destroy a breeding site or resting place of such an animal

Disturbance is defined as that which is likely to impair the ability to survive, breed, reproduce, or nurture young, or to hibernate or migrate.

There are other offences relating to possession, transport and sale. See 'Possession and Sale of Protected Species' for more information.

The great crested newt and natterjack toad also receive protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) from the following:

disturbing whilst occupying a place of shelter or protection,

obstructing access to a place of shelter or protection,

sale / offering for sale

Licensing for activities involving European Protected Species:

In certain circumstances Natural Resources Wales may issue licences for activities involving European protected species, that would otherwise be offences.