

Protected Species Surveys at
The Old Fire Station,
Colliery Road, Chirk,
Wrexham, Clwyd LL14 5PB
GR SJ 29381 38063

On 24th July and 31st August 2017

Report completed 30.9.17

Survey by:
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Summary

Protected species surveys at The Old Fire Station, Colliery Road, Chirk, Wrexham LL14 5PB were carried out on 24th July and 31st August 2017 by Michael Worsfold, Susan Worsfold and Craig Thomas for Worsfold and Bowen of Springfields, Station Road, Llanymynech, Shropshire SY22 6ED. The areas investigated are shown in Annexes 1-2.

Evidence of protected species was searched for at the request of Chrissie Rowlands of Forge Property Consultants, Lands End, Tedsmore Road, West Felton, Oswestry, Shropshire SY11 4ER. in relation to proposed demolition of the three buildings and the construction of new dwellings.

Details of the survey methods and findings are included. The findings are supported by photographic evidence.

Birds

There is not considered to be any impact on birds as long as no nesting birds are disturbed during the process. See Annex 6. Hedges should not be trimmed nor any trees felled between the beginning of May and the end of August to avoid the risk of harm to nesting birds.

Bats

There is not considered to be any impact on bats or their conservation status as a result of the development. See Annex 6. However, if any bats are found during the development work in that area must stop and a licensed bat worker contacted for advice.

Great crested newts (GCN)

There is not considered to be any risk of harm to GCN or threat to their conservation status as long as reasonable avoidance measures are taken (page 9).

Other protected species

There was no evidence of any other protected species on the site or within 30 m of the site.

Personnel

Michael Worsfold PhD

Licensed and experienced bat worker and VBRV, registration numbers 2015-14022-CLS-CLS CL16 (Bat Roost Visitor Level 2) and 2015-15747-CLS-CLS CL20 (Bat Survey Level 4) (NE) and 71974:OTH:CSAB:2016 (NRW)

Licensed great crested newt worker, registration number 65948:OTH:SA:2015 (NRW)

Susan Worsfold (SW) BSc Hons Grad CIEEM

Licensed bat worker and VBRV, registration numbers CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (NE) and 72725:OTH:CSAB:2016 (NRW);

Licensed great crested newt worker, registration number 2015-8194-CLS-CLS (NE) and 72936-OTH-SA:2016 (NRW)

Craig Thomas (CT) is an experienced assistant.

Scope

Protected species surveys at The Old Fire Station, Colliery Road, Chirk, Wrexham LL14 5PB were carried out on 24th July and 31st August 2017 by Michael Worsfold, Susan Worsfold and Craig Thomas for Worsfold and Bowen of Springfields, Station Road, Llanymynech, Shropshire SY22 6ED at the request of Chrissie Rowlands of Forge Property Consultants, Lands End, Tedsmore Road, West Felton, Oswestry, Shropshire SY11 4ER. in relation to proposed demolition of the three buildings and the construction of new dwellings. Evidence of the presence of protected species was sought as defined in:

The Conservation of Habitats and Species Regulations 2010 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.

Background

The buildings are currently in use as storage for pet and wild bird products and building 3 is also used as a shop, selling the same products.

Procedures and equipment

The building was 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 buildings. They were 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 P14, Cluson Clulite CB2) 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 Annex 4.

One dusk emergence survey was carried out 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 for later analysis on the computer. These were Anabat SD1 and Echo Meter EM3.

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Environment

Elevation	110 m
Nearest town & distance	Chirk, adjacent
Situation	Semi rural
Nearby woodland	Chirk Green 200 m from the site.
Nearby ponds	Two within 500 m.
Rivers etc	River Dee 650 m south
Hedges	Short lengths of predominantly domestic hedgerows surrounding nearby houses
Nearest designated site	River Dee (SSSI) 650 m south

Findings

Description of the buildings and land and signs of use or potential for use by protected species

Building 1

Walls: brick with no cavity, painted externally and lined with plaster and paint internally.

Windows: glazed and intact.

Doors: wood, intact.

Roof and framework: flat, felt covered.

Loft space: none

Ceiling: ceiling tiles.

Ridge tiles: none.

Verge boards and soffits: none.

No evidence of use by bats or birds was found internally or externally. There was considered to be negligible potential for use by bats.

Building 2

Walls: brick with no cavity, painted externally and lined with plaster and paint internally.

Windows: glazed, some missing.

Doors: wood, some missing.

Roof and framework: corrugated steel with wood frame for part of the building. Felt roof lined with plaster for the rear part. No ridge tiles.

Ceiling: partly plastered at the rear. There was no loft space.

Verge boards and soffits: none.

No evidence of use by bats or birds was found internally or externally. There was considered to be negligible potential for use by bats.

Building 3

Walls: wood, painted internally and externally.

Windows: glazed, intact.

Doors: wood, intact.

Roof and framework: pitched, tile, lined with wood planks. No loose or broken tiles. Some small gaps at the eaves so potential access for bats. Ridge tiles were intact with small gaps.

Ceiling: wood planks lining roof. There was no loft space.

Verge boards and soffits: wood soffit at one gable end. Wood verge boards at both gable ends.

There was a small wood porch at the north east gable end. This had a pitched corrugated steel roof lined with wood. There was some flashing at the gable ends with some gaps so potential access for bats.

No evidence of use by bats or birds was found internally or externally. There was considered to be low potential for use by bats.

The Land

The total area of the site is approximately 0.2 ha. There is a pond approximately 200 m from the site which was not accessible.

The garden associated with the buildings at the southern section was well vegetated with cultivated and self seeded species, including ragwort (*Jacobaea vulgaris*), dandelion (*Taraxacum officinale*), grasses, dock (*Rumex spp.*), sloe (*Prunus spinosa*), rosebay willowherb (*Epilobium angustifolium*), blackcurrant, nettle (*Urtica dioica*), bindweed (*Convolvulus arvensis*), cleavers (*Galium aparine*), rhubarb, pear, plum, cherry and kiwi. The hard standing between the buildings and along the perimeter has become colonised by willowherb, ragwort, nettle, bramble (*Rubus fruticosus*), bindweed, ash (*Fraxinus excelsior*), creeping thistle (*Cirsium arvense*) and dandelion.

The west boundary hedge is composed entirely of privet (*Ligustrum sp.*). The east boundary hedge is more diverse, with hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*) and conifer in addition to the privet. The short section of hedge next to the road at the south is composed of rose (*Rosa sp.*), ash, holly (*Ilex aquifolium*), hazel (*Corylus avellana*) and dogwood (*Cornus sp.*)

None of the hedges associated with the site fulfilled the criteria for an 'important' hedge, having no more than four species per 30 m length.

Other protected species

No badger setts were seen on the site or within 30 m of the site.

No evidence of use by dormice was found on or near the site.

No evidence of use of the site or nearby environment by any other protected species was found.

Activity Surveys

Date	Sunset/ Sunrise	Start	End	Temp Start °C	RH Start %	Temp End °C	RH End %	Cloud %	Wind 0-6
31/8/17	20.01	19.45	23:10	14	79	11	85	70	1

Number of observers: 2

Observer 1: SW; equipment: EM3; Station: south corner of building 3

Observer 2: CT; equipment : Anabat SD1; Station: north corner of building 3

Bat species seen and/or recorded:

First bat:

Lesser Horseshoe bat (*Rhinolophus hipposideros*)

Time: 19.59; *Location:* SW stations

Subsequently: Once, SW station.

Other species:

Whiskered bat (*Myotis mystacinus*)

Time: 20.33; *Location:* CT station

Subsequently: Once, CT station and also *Myotis sp.* Recorded once at both stations.

Common pipistrelle (*Pipistrellus pipistrellus*)

Time: 20.34; *Location:* both stations

Subsequently: Occasionally, both stations.

Soprano pipistrelle (*Pipistrellus pygmaeus*)

Time: 20.35; *Location:* CT station

Subsequently: Once, CT station

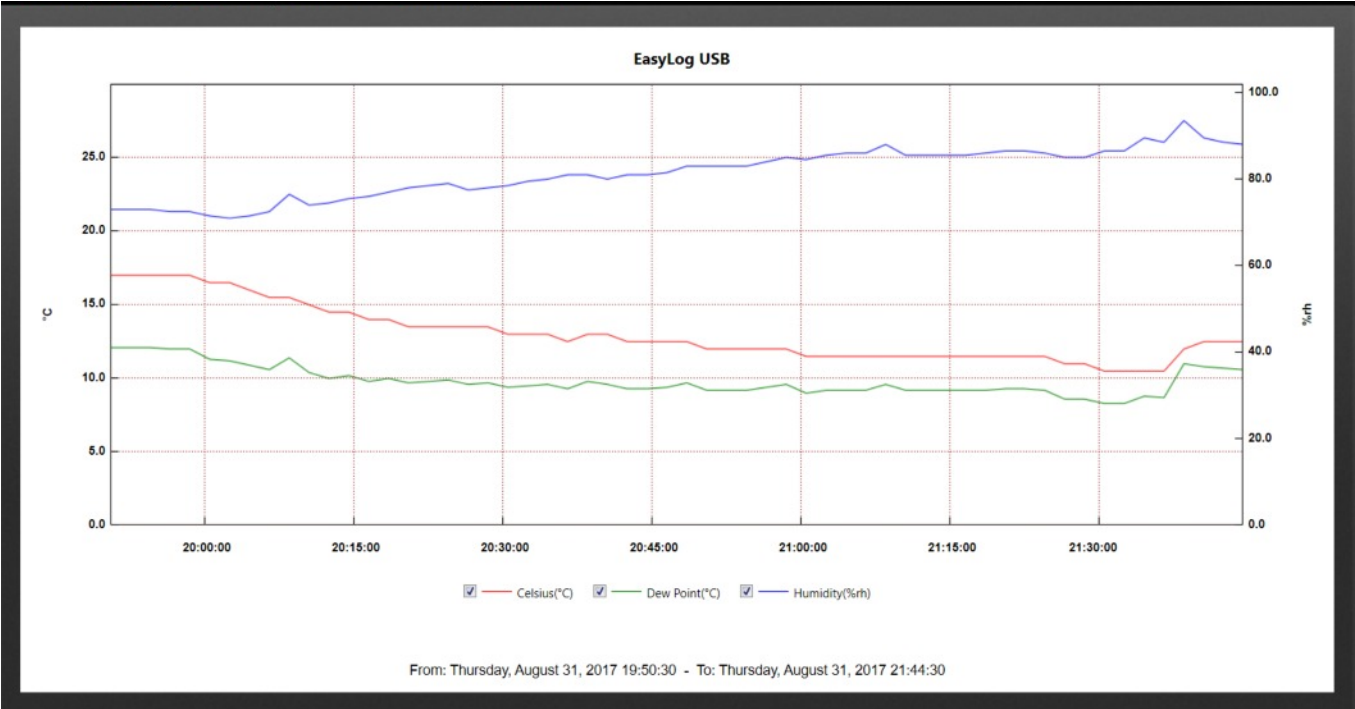
Noctule (*Nyctalus noctula*)

Time: 20.55; *Location:* both stations

Subsequently: Once, CT station

The first bat to be seen was at 20.35 at both stations, arriving from the north and foraging overhead. Bats were seen to arrive from the direction of the road and from the east. No bats were seen to emerge from the building.

Temperature and Humidity Chart



Conclusions and Impact Assessment

Birds

1. The impacts which the proposed development might have on birds should be small, providing that no nests are occupied or being built at the time the work is done.
2. In the interest of biodiversity enhancement it is recommended that one woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow should be incorporated into each new building, and one woodcrete nests suitable for swallows. One swift brick is also recommended:
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 nest - H110mm x W250mm x D140mm. The nest should be placed inside an enclosed outbuilding or shed, porch or garage leaving a distance of at least 6cm between the top of the nest and the ceiling. There must be access for the birds through an open window or sky-light. A car port or refuse bin shelter, or an outbuilding with a permanently open window or half door, or simply a space over the door, would suffice. Under the eaves of the buildings would be acceptable but less suitable.
Swift brick - an entrance hole of 55cm x 33cm. and external box/brick dimensions: Height 18cm x width 26.5 x depth 22cm.
Other designs of nest boxes may also be suitable.
3. If birds should gain access to the buildings and begin building nests before or during the work, then the work in that area will have to stop until the young have left the nests (see Annex 7).
4. No owl pellets or droppings were found that would indicate that any of the buildings are being used by owls.

Bats

5. There is not considered to be any threat to the conservation status of bats or danger of harm to individuals by the proposed works as none were found to be roosting in the buildings and none of the trees on site were considered suitable for use by bats.
6. However, in the interests of biodiversity enhancement it is recommended that a bat box e.g. Schwegler 1FF is fitted externally to each new building. 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 where possible.
7. 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.
8. A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines: http://www.bats.org.uk/pages/bats_and_lighting.html

Great Crested Newts (GCN)

9. Since there is a pond within 250 m of the site there is a potential of risk of harm to individual GCN due to the proposed development.
10. To prevent killing or injuring any foraging or commuting GCN reasonable avoidance measures should be taken as described on page 9.

Reasonable Avoidance Measures with Regard to Great Crested Newts (GCN)

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

Great crested newts 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. The vegetation in all areas should be kept as short as possible.
2. If any trenches cannot be filled the same day they will need a ramp of earth made at the ends of the trenches, to the full depth of each trench, so that newts can climb out. It is not sufficient to leave a piece of wood against the sides, which would allow small mammals to escape, but not newts, which are not good climbers. The trenches must be inspected carefully before infilling, and any animals carefully removed and released into the surrounding hedgerows (but see para 7 below).
3. 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. Any such storage must be on a gravel drive or other hard surface, and not on a lawn or other soft surface.
4. If any potential refuges such as piles of rubble or logs need to be moved before work starts, care must be taken when moving them. This should be done by hand.
5. 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.
6. Any excavated material which is not replaced on the same day must 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.
7. If any great crested newt is discovered in the area of the work, then work in that area must stop and a licensed great crested newt worker contacted immediately for advice.

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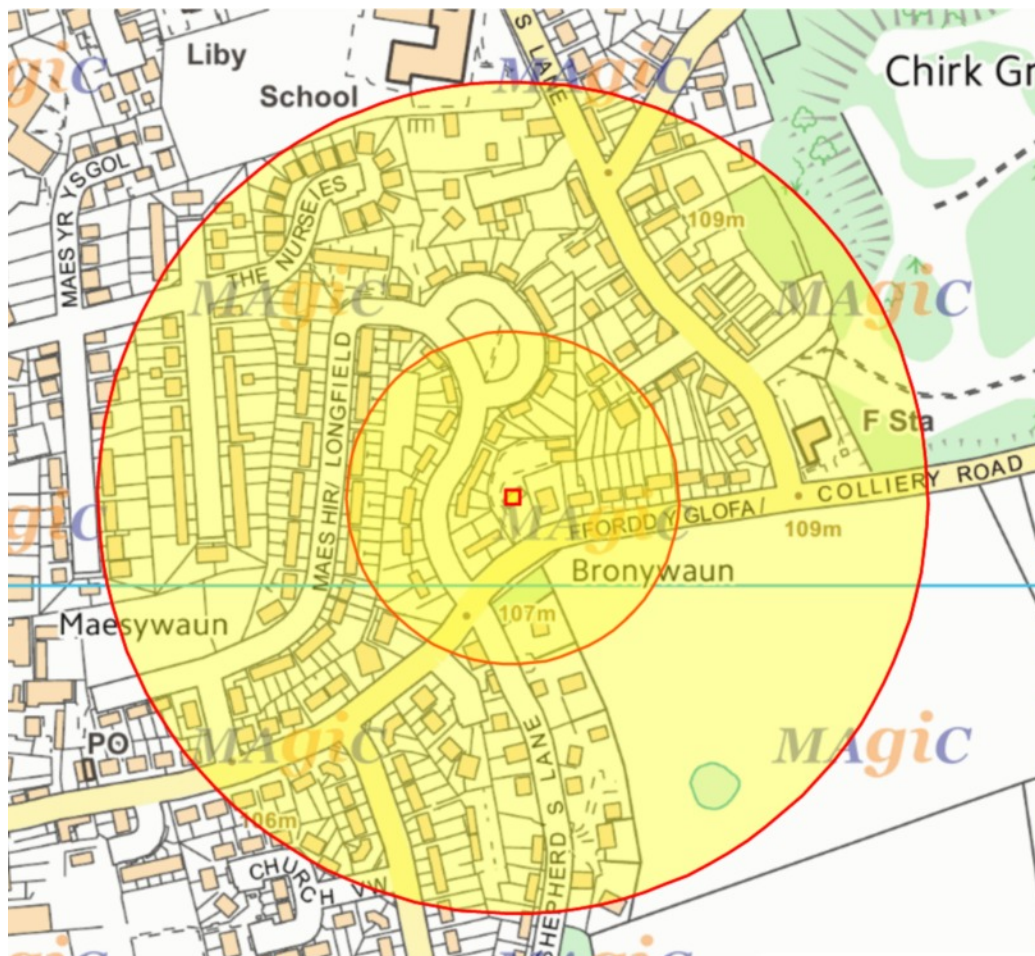
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Annex 1.1: Location Map



Annex 1.2: Location Map



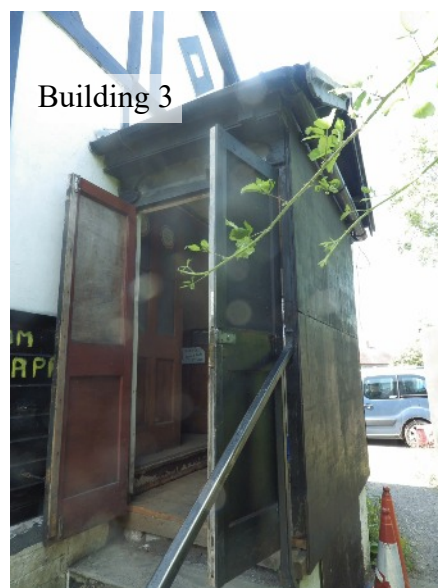
Annex 2: Aerial Photograph



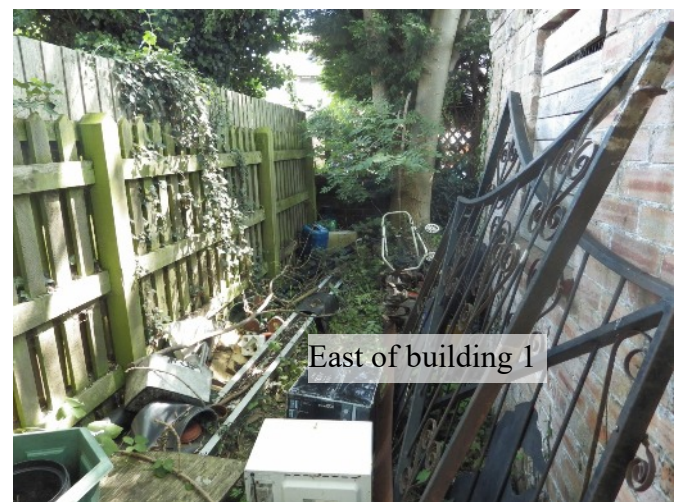
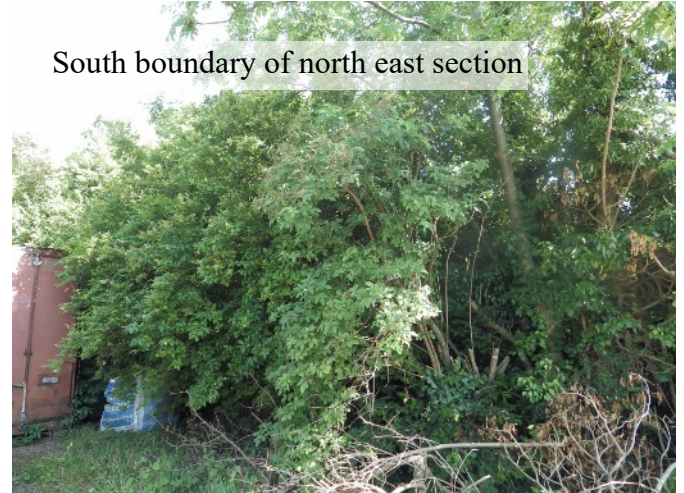
Annex 3.1: Photographs of the Exteriors and Land



Annex 3.2: Photographs of the Exteriors and Land



Annex 3.3: Photographs of the Land



Annex 3.4: Photographs of the Land



West boundary

South west section of site



South boundary



South section of site



East boundary of south section

Annex 3.4: Photographs of the Interiors



Annex 3.5: Photographs of the Interiors



Building 2



Building 2



Building 2



Building 2



Building 3

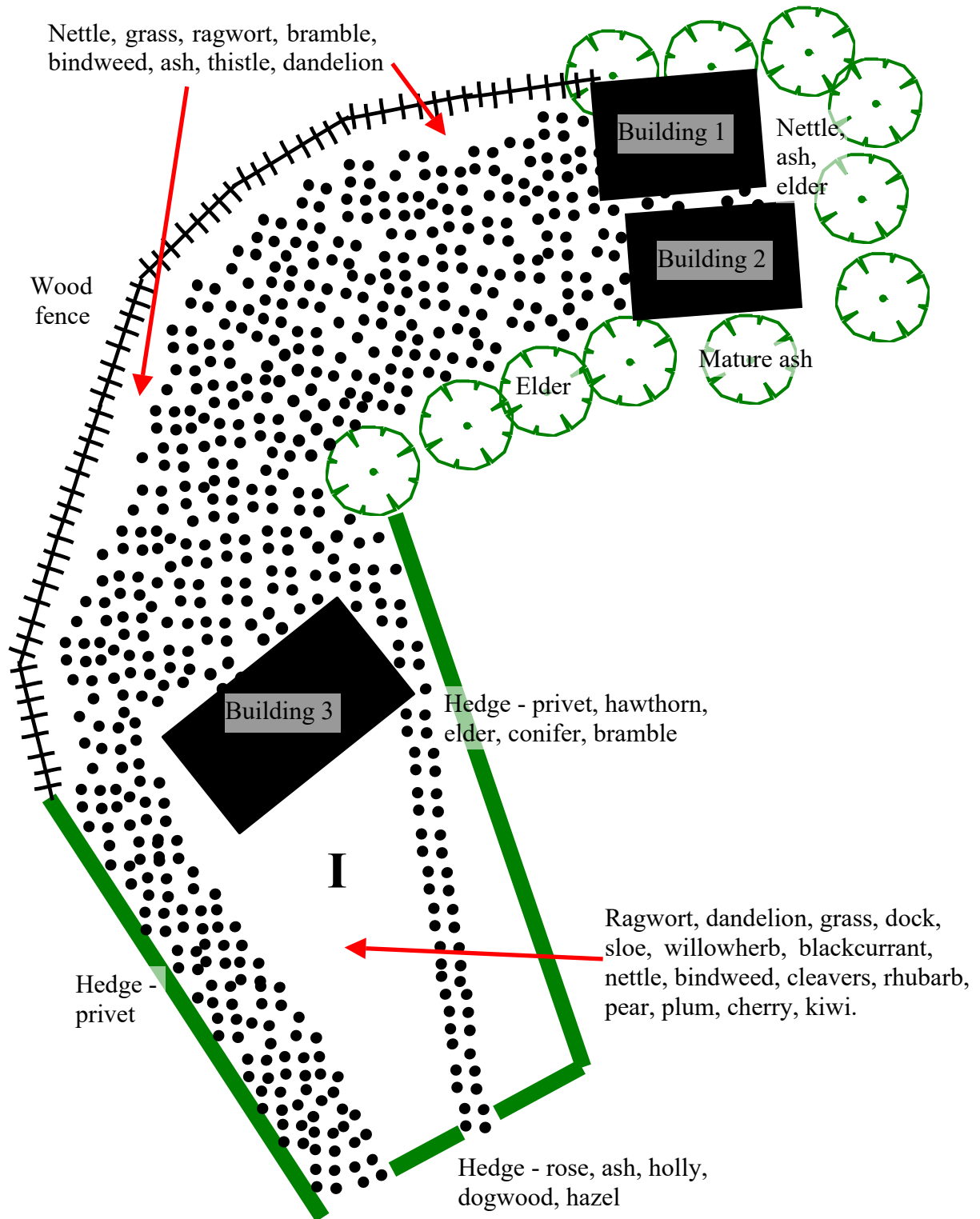


Building 3



Building 3

Annex 4: Survey Diagram



Annex 5: Bats and the Law

Taken together, the Wildlife and Countryside Act 1981 (WCA) (as amended), the Countryside and Rights of Way Act 2000 (CROW), and the The Conservation of Habitats and Species Regulations 2010 make it illegal to:

- intentionally or deliberately kill, injure or capture (or take) bats;
- deliberately disturb bats (whether in a roost or not);
- recklessly disturb roosting bats or obstruct access to their roosts
- damage or destroy bat roosts;
- possess or transport a bat or any part of a bat, unless acquired legally;
- sell (or offer for sale) or exchange bats, or parts of bats.

The word 'roost' is not used in the legislation, but is used here for simplicity.

The actual wording in the legislation is 'any structure or place which any wild animal ...uses for shelter or protection' (WCA) or 'breeding site or resting place' (Conservation of Habitats & Species Regulations).

Because bats tend to re-use the same roosts after periods of vacancy, legal opinion is that the roost is protected whether or not the bats are present at the time.

Enforcement

The police are the main enforcement body for wildlife offences, and in some cases local authorities may also take action.

Section 24(4) of the 1981 Act gives English Nature (or, in Wales, NRW (Natural Resources Wales)) the function of providing advice or assistance to the police in respect of alleged offences.

The maximum fine on conviction of offences under Section 9 of the 1981 and Regulation 41 currently stands at £5000 and/or imprisonment for up to 6 months.

Note: Fines may be imposed in relation to each offence committed, so operations involving many animals or repeated offences can potentially accrue large fines.

In addition, items which may constitute evidence of the commission of an offence may be seized and detained.

The CROW Act 2000 also amends the Police and Criminal Evidence Act 1984 to render Section 9 offences 'arrestable', giving the police significant additional powers.

The use of a NRW licence in respect of bat species

A Welsh National Assembly licence is a licence which permits an action that is otherwise unlawful. To ensure that no illegal activities are undertaken during the course of a development, it is recommended that a licence is applied for if, on the basis of survey information and specialist knowledge, it is considered that

- the site in question is demonstrably a breeding site or resting place for bats
- the proposed activity is reasonably likely to result in an offence

No licence is required if the proposed activity is unlikely to result in an offence.

Annex 6: Birds and the Law

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

- a) intentionally kill, injure or take any wild bird
- b) intentionally take, damage or destroy the nest of any wild bird while it is in use or being built
- c) intentionally take or destroy the egg of any wild bird
- d) have in one's possession or control any wild bird (dead or alive) or part of a wild bird which has been taken in contravention of the Wildlife and Countryside Act 1981 or the Protection of Birds Act 1954
- e) have in one's possession or control an egg or part of an egg which has been taken in contravention of the Act
- f) have in one's possession or control any birds of a species occurring on Schedule 4 of the Act unless registered and ringed in accordance with the Secretary of State's regulations.
- g) intentionally (or recklessly, in England and Wales only) disturb any wild bird listed on Schedule 1 while it is nest building or is at (or near) a nest with eggs or young; or disturb the dependent young of such a bird.

Annex 7: Legislation regarding great crested newts

Great Crested Newts are a European Protected Species (EPS). Their legal protection is now provided by the Conservation of Habitats and Species Regulations 2010 which replaces earlier legislation and which implement the EC Directive 92/43/EEC in the United Kingdom. They are listed on Schedule 2 of those regulations.

It is an offence, with certain exceptions, to:

- deliberately capture or kill any wild animal of a EPS;
- deliberately disturb any such animal;
- deliberately take or destroy eggs of any such wild animal;
- damage or destroy a breeding site or resting place of such a wild animal;
- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a EPS, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to a fine not exceeding level 5 (currently £5,000 per offence) on the standard scale, or to both. (Each animal affected counts as a separate offence).