

Ecological Appraisal and Impact Assessment at
Land Adjacent to Hillcroft,
Wrexham Road, Pentre Bychan
Wrexham LL14 4DT
Grid Ref. SJ 3029 4745

On 27th January 2021

Report completed 2nd May 2021
Ref: HIL270121

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1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at land adjacent to Hillcroft, Pentre Bychan and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme entails the construction of a dwelling on an area of former domestic garden.

The site and adjacent land were examined to establish the presence of or evidence of use by protected species of animals.

Hedges should not be trimmed and trees should not be felled or trimmed between March and September to avoid damage to birds' nests. If this needs to take place they should be checked by a suitably qualified ecologist immediately beforehand. 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. Loss of trees should be compensated as described on page 8.

There is not considered to be any threat to the conservation status of 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.

Since the site may be used by foraging and commuting bats a lighting plan should be designed in accordance with Bat Conservation Trust guidelines:<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>. A bat box should be installed as described on page 8.

Reasonable avoidance measures should be taken with regard to great crested newts as given on page 7.

There should not be any significant impact on any protected species or habitat as long as the recommended mitigation and enhancement 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 S089569-1 (Natural Resources Wales);

Great crested newt licence registration number 2016-19947-CLS-CLS (NE) and S089570-1 (NRW)

This report was commissioned by Spender Cullis of Cullis Architectural Design, Wrexham for the clients. The site, at land adjacent to Hillcroft, Pentre Bychan, Wrexham, is a 0.1 ha area of former domestic garden. The proposed scheme involves the construction of a new dwelling with associated access.

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 extended phase 1 habitat survey, 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 dormice, amphibians and reptiles, and might contain protected plant species.

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. A data search was commissioned from Cofnod to identify protected species within 1 km. There are records of otter and bat at 334 and 328 m distance from the site.

3.3. Field Survey

The site was examined to establish the presence of any protected species or habitats, and for evidence of use by protected species of animals. Trees were assessed for suitability for use by bats and birds. The site and surrounding habitat was examined for signs of use by other protected species. Maps of the site and surrounding environment were examined to identify any nearby waterbodies suitable for use by great crested newts within an influencing distance of the site. The variety of plant species was mapped according to the convention of Phase 1 habitat surveys as described by the JNCC (2010). Photographs were taken of all relevant areas.

The visual assessment of the site was carried out in accordance with CIEEM guidelines (CIEEM 2017) on 27th January 2021 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Stryt a'r las Hafod (SSSI)/Johnstown Newt Sites (SAC), 650 m south east.

4.2 Habitats

Site: Small village location. Predominantly grassed area adjacent to a existing occupied dwellings but separated by physical boundaries on each side, of hedge and wood fence as shown in appendix 13.5. The approximate area of the site is 0.1 ha. There was some potential for nesting, foraging and shelter for birds and small mammals.

Adjacent land: Arable and pastoral. The Wrexham road is adjacent, to the south east. There are no ponds apparent within 500 m. Pentre Bychan brook is 250 m north. There is a small area of woodland associated with the brook. There is a good network of hedgerows surrounding the site.

4.3 Species and Species Groups

Plants

Ground flora vegetation to be affected: predominantly grasses (*Lolium perenne*) with some creeping thistle (*Cirsium arvense*), cleavers (*Galium aparine*), clover (*Trifolium* sp.), dandelion (*Taraxacum* sp.), plantain (*Plantago* sp.), common nettle (*Urtica dioica*), yarrow (*Achillea millefolium*), dock (*Rumex* sp.), mosses, teasel (*Dipsacus* sp.), heather (*Calluna vulgaris*) (foxglove (*Digitalis purpurea*) and creeping buttercup (*Ranunculus repens*). There were also a small cherry tree and small fruit trees, as well as mature conifers. Hedges comprised conifer, holly, privet, hawthorn and laurel.

Amphibians and Reptiles

None seen during the survey. There were no ponds apparent on maps within 500 m.

Birds

There were several small trees which were suitable for use by nesting birds. No nests were seen at the time of the visit but it was early in the year for nesting birds.

Bats

The site is suitable for use by foraging and commuting bats. None of the trees were suitable for use as roosts for bats.

Dormice

No hazelnuts were found which indicated gnawing by dormice and the site was not favourable for use by them.

5. Description of the Development

The proposed scheme involves the construction of a dwelling with associated access. Boundaries will be unaffected.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact on Johnstown Newt Site due to the small scale of the development and distance from the site. However, the site lies within the buffer zone for this SAC and therefore reasonable avoidance measures are recommended as given below to ensure no GCN are harmed, in accordance with the Draft Supplementary Planning Guidance Note 35: Great Crested Newt Mitigation Requirements.

Habitats:

No priority habitat is affected by the proposal. Some nesting potential will be lost in the absence of compensation therefore planting and nest boxes should be provided as given below.

Species:

Birds

If birds should gain access and begin building nests during the work, then the work in that area must stop until the young have left the nests. Some nesting potential will be lost in the absence of compensation therefore planting and nest boxes should be provided as given below. Hedges should not be trimmed and trees should not be felled or trimmed between March and September to avoid damage to birds' nests. If this needs to take place they should be checked by a suitably qualified ecologist immediately beforehand.

Bats

There is not considered to be any threat to the conservation status of bats. However, the site may be used by foraging and commuting bats 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/>

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.

Reptiles and amphibians

The site lies within the buffer zone for Johnstown Newt Site SAC and is suitable habitat for foraging and commuting GCN. Therefore reasonable avoidance measures are recommended as follows:

Removal of the debris at the west corner should be done carefully and by hand.

Any vegetation on site should be kept below 10 cm. Vegetation removal should begin in the centre of the site and continue to the outer edges so that any animals present are able to move away.

Any trenches should be inspected carefully before infilling, and any animals carefully removed and removed from the area to a place of safety.

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 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.

Residual Effects

No significant residual effects anticipated.

7. Compensation

One woodcrete nest suitable for small birds such as robin, blackbird, tit species and sparrow to be incorporated into the house. To be placed in a north to north east position if possible.

Two wildlife friendly native trees/shrubs to be planted on site, 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*). These would also be attractive and a fairly manageable size.

8. Enhancement Recommendations

A woodcrete bat box to be fitted externally to the new house. 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.

9. Ecological Constraints

Surveys of this type should ideally be carried out during the spring or summer to give the best chance of identifying all species present on site.

10. Monitoring

None considered appropriate.

11. Conclusions

If the recommended mitigation, compensation 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/>

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

Draft Supplementary Planning Guidance Note 35: Great Crested Newt Mitigation Requirements – Johnstown Newt Site SAC and the Wider Countryside available at:
http://old.wrexham.gov.uk/assets/pdfs/planning/consultations/draft_spg35.pdf

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

Hedgerows Regulations 1997 available at: <http://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*, ISBN 0 86139 636 7

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

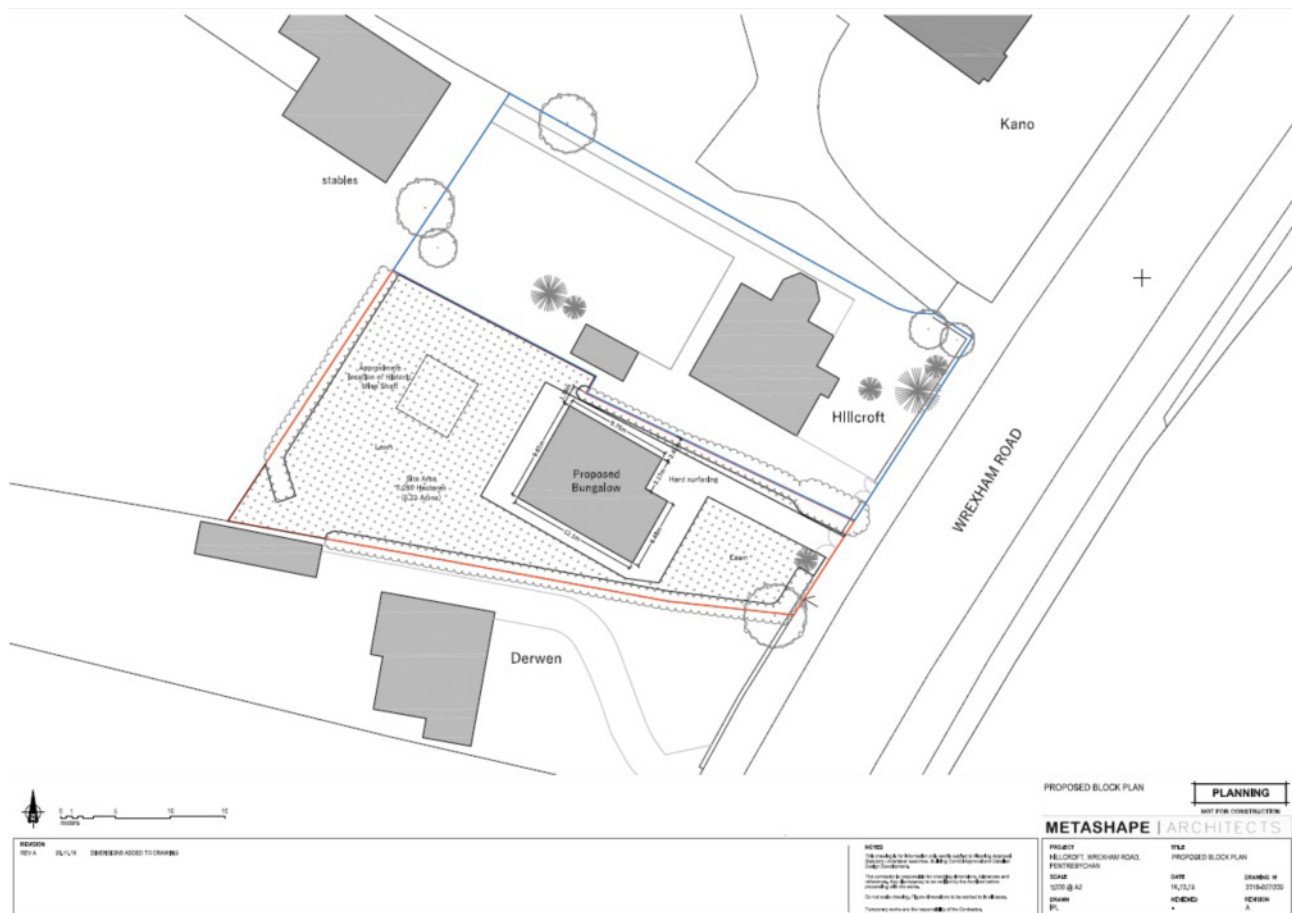
Natural Resources Wales available at: <https://naturalresources.wales/?lang=en>

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

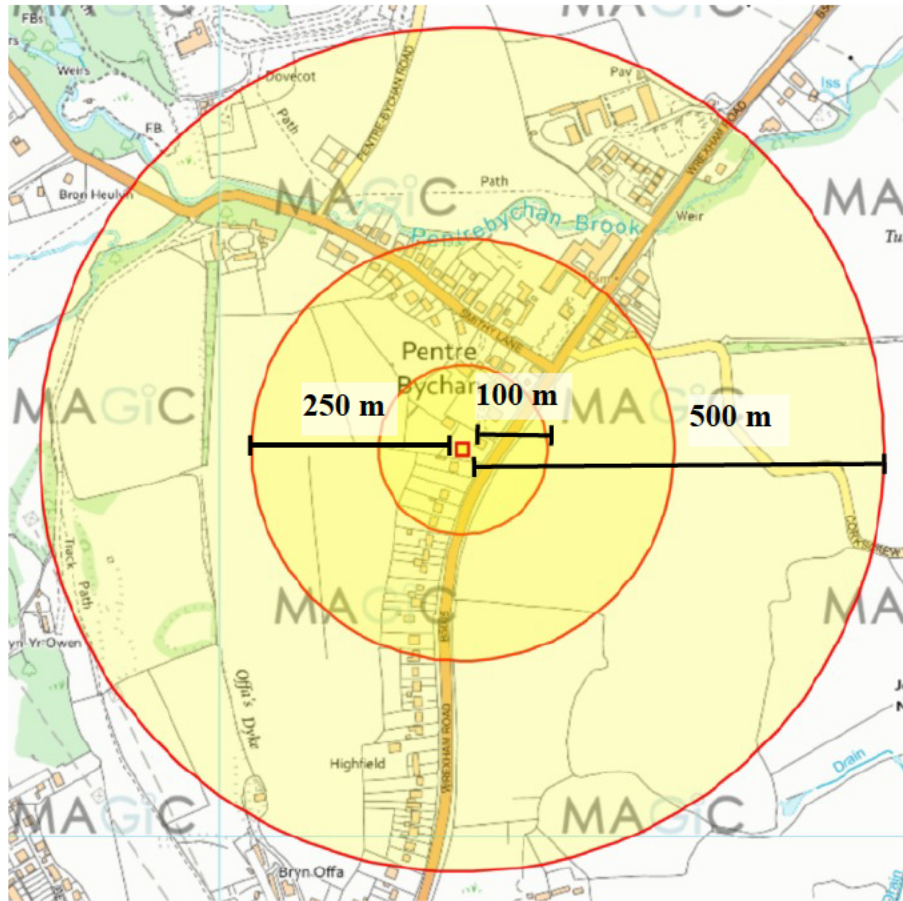
Wildlife and Habitat Conservation available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

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

Appendix 13.1: Plan as Proposed



Appendix 13.2: Location Map, Designated Sites and Zones of Influence



Appendix 13.3: Aerial Photograph



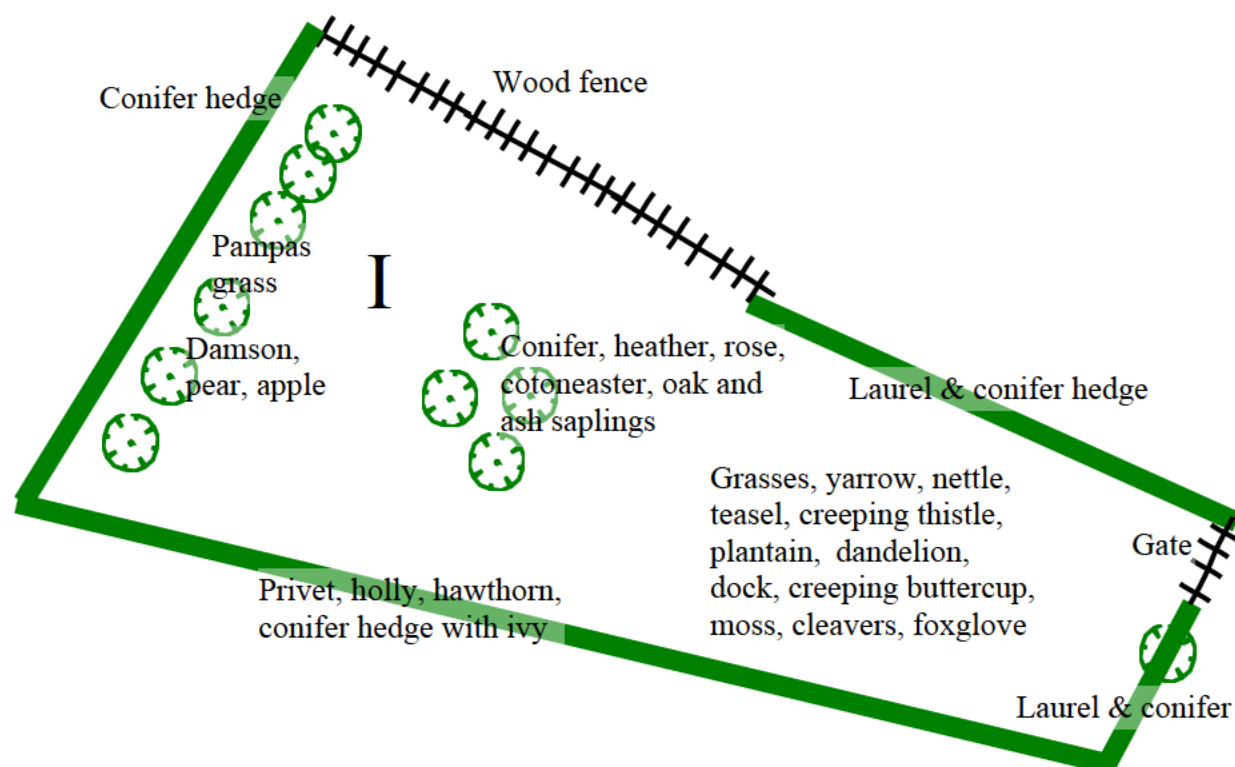
Appendix 13.4: Photographs of the Site



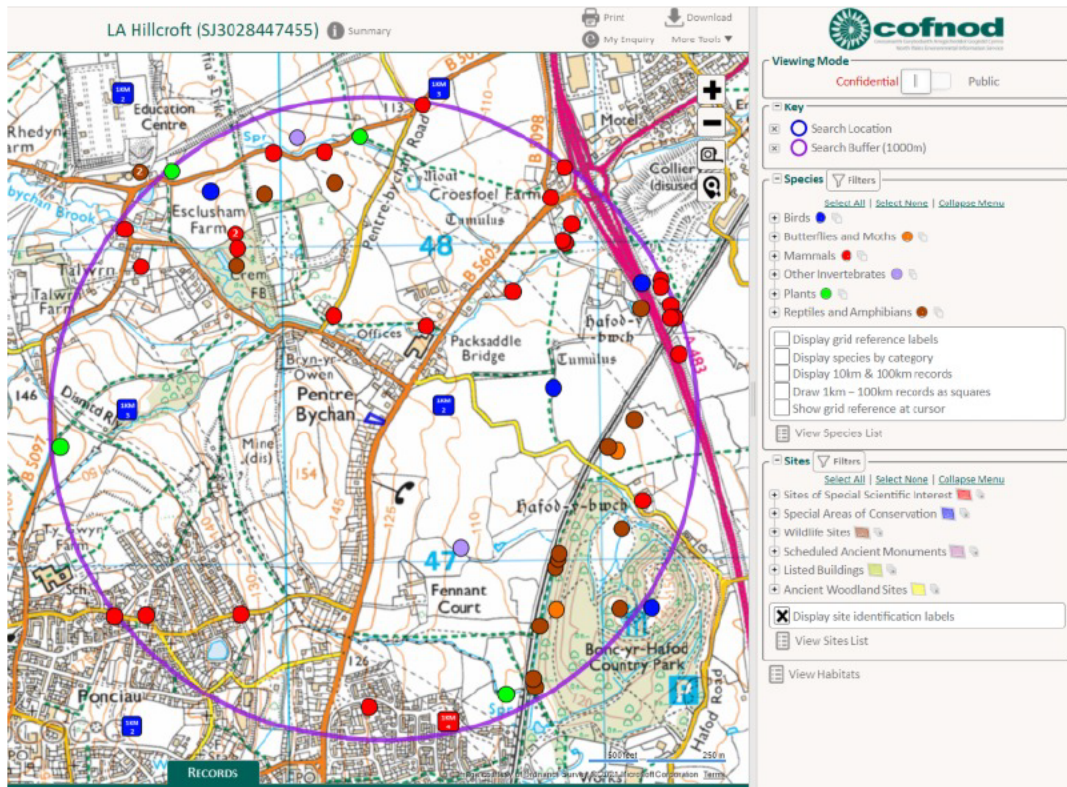
Appendix 13.4: Photographs of the Site



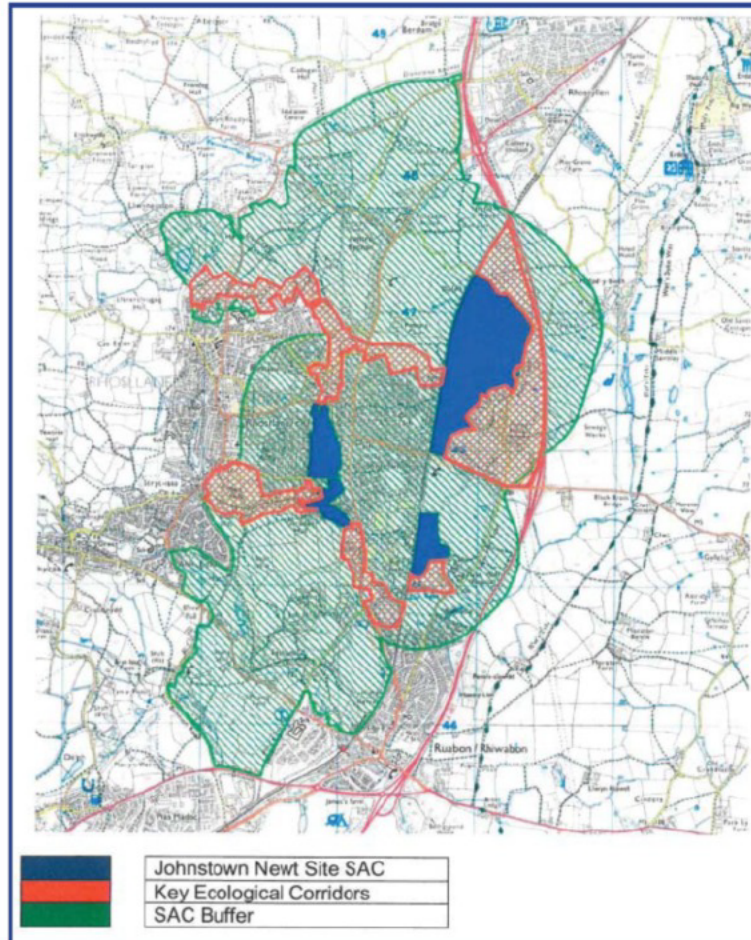
Appendix 13.5: Survey Diagram



Appendix 13.6: Data Search



Appendix 13.7: Map Showing Extent of Johnstown SAC and Buffer



Appendix 13.8: 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 13.9: 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.