

Ecological Appraisal and Impact Assessment at
Zenith Point,
Pen-y-Bryn, Penrycae
Wrexham LL14 1TY
Grid Ref. SJ 2733 4396

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1. Summary

1. The purpose of the report is to assess the potential ecological impacts of a proposed development at 4, Zenith Point, Penrycae, Wrexham and advise on any mitigation measures to comply with local planning policy and government legislation.
2. The proposed scheme involves the installation of two camping pods to a domestic lawned area with associated parking.
3. The site and adjacent land were examined to establish the presence of or evidence of use by protected species of animals.
4. Impacts during the development are considered to be low as long as reasonable avoidance measures are taken with regard to great crested newts as shown in the method statement on page 9.
Lighting should not be directed at the nearby trees to avoid any disturbance to nesting birds and any lighting should be at the minimum intensity necessary and hooded to avoid light spillage upwards, since the site may be used by foraging and commuting bats.
There is not considered to be any threat to the conservation status of bats or harm to individuals.
Precautions must be taken to avoid contamination of the nearby stream following installation of the septic tank.
5. 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 Theo Speaks of Speaks Design Services for the client.

The site, at Zenith Point, Penycae, Wrexham, is a 0.05 ha area of domestic lawn.

The proposed scheme involves the installation of two camping pods with associated parking.

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 badgers, 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 any protected species within a 1 km radius.

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. 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 18th September 2021 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Berwyn and South Clwyd Mountains, 1.8 km north west, (SSSI and SAC)

4.2 Habitats

Site: Rural location. The approximate area of the site is 0.05 ha. The northern boundaries were the track leading to the house on the north east side and a conifer hedge on the south east side. There were a small number of mature trees at the north west end. These did not possess any potential bat roost features and there were no nesting birds at the time of the survey.

Adjacent land: There is a road adjacent, to the east. There is a pond 48 m south east and two other ponds within 500 m. There are several small areas of woodland within 500 m. There is a good network of hedgerows surrounding the site. There is a stream running north to south along the east side.

4.3 Species and Species Groups

Plants

The only ground flora vegetation to be affected is predominantly closely mown lawn, i.e. grasses, which could not be identified. There were several other plant species on the site, including common cat's ear (*Hypochaeris radicata*), creeping thistle (*Cirsium arvense*), red clover (*Trifolium pratense*), ribwort plantain (*Plantago lanceolata*), broadleaf plantain (*Plantago major*), common daisy (*Bellis perennis*), violet (*Viola riviniana*) yarrow (*Achillea millefolium*), self heal (*Prunella vulgaris*) and creeping buttercup (*Ranunculus repens*). There were several mature trees at the western end which are to remain.

Amphibians and Reptiles

None seen on site and there is no foraging potential apart from under the hedge. There is a pond 48 m from the site which has been assessed as being suitable for use by great crested newts.

Birds

There were trees at the western site boundary 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. No evidence of use of the trees as roosts 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.

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 two camping pods with associated parking areas. The existing track will be used to allow access. The south boundary hedge and trees to the west are to remain. Foul drainage will be dealt with by the installation of a septic tank. The precise location of the drainage field has not yet been decided.

The project involves the disturbance and loss of a small area of low quality habitat and the digging of holes and trenches for the septic tank.

6. Assessment of Effects and Mitigation Measures

Designated Sites:

It is not considered that the development will have any significant impact on any designated sites due to the small scale of the development and distance from the sites.

Habitats:

No priority habitat is affected by the proposal and no loss of potential roosting or nesting sites will occur. Precautions must be taken to avoid contamination of the nearby stream following installation of the septic tank.

Species:

Birds

The impacts which the proposed work might have on birds will be small, since no trees are to be felled or hedges removed. Lighting should not be directed at the nearby trees or hedge.

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. Lighting should be at the minimum intensity necessary and hooded to avoid light spillage upwards,

Reptiles and amphibians

There is potential for harm to individual great crested newts which may be using the nearby pond and may therefore potentially occur on the site. The main risk would be from the work associated with installation of the septic tank and associated drainage field as this will involve digging of holes and trenches.

A method statement with regard to GCN must be followed to ensure an offence is not committed.

Residual Effects

No significant residual effects anticipated.

7. Compensation

None considered appropriate.

8. Enhancement Recommendations

There are records of several species of bird within 500 m, including bullfinch, brambling, house sparrow, dunnoek and starling. Three bird boxes are recommended for the nearby trees to reflect the diversity of species. These should be of a woodcrete construction for durability.

9. Ecological Constraints

A method statement regarding precautions with regard to great crested newts must be followed as shown on page 9.

10. Monitoring

None considered appropriate.

11. Conclusions

There should not be any significant impact on any protected species or habitat as long as the recommended mitigation and enhancement measures are followed.

Reasonable Avoidance Measures with Regard to Great Crested Newts

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.

The project involves the disturbance and loss of a small area of low quality foraging habitat and the digging of holes and trenches for a septic tank. Therefore:

1. Vegetation should be kept as short as possible to make the area unattractive to GCN and other reptiles and amphibians, and kept clear of any potential refuges such as piles of rubble or logs.
2. If any trenches cannot be filled the same day they will need a ramp of earth 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 below).
3. Building materials will be stored clear of the ground (e.g. 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 the drive or other hard surface, and not on vegetation or other soft surface.
4. Bulk materials will be used on the same day as delivery where possible to reduce the likelihood of GCN taking shelter underneath.
5. Any open pipework will be capped overnight. All open trenches and pipework will 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.
8. A copy of these measures will be displayed on site for the duration of the work.

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

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

Hedgerows Regulations 1997 available at: <http://www.legislation.gov.uk/uksi/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

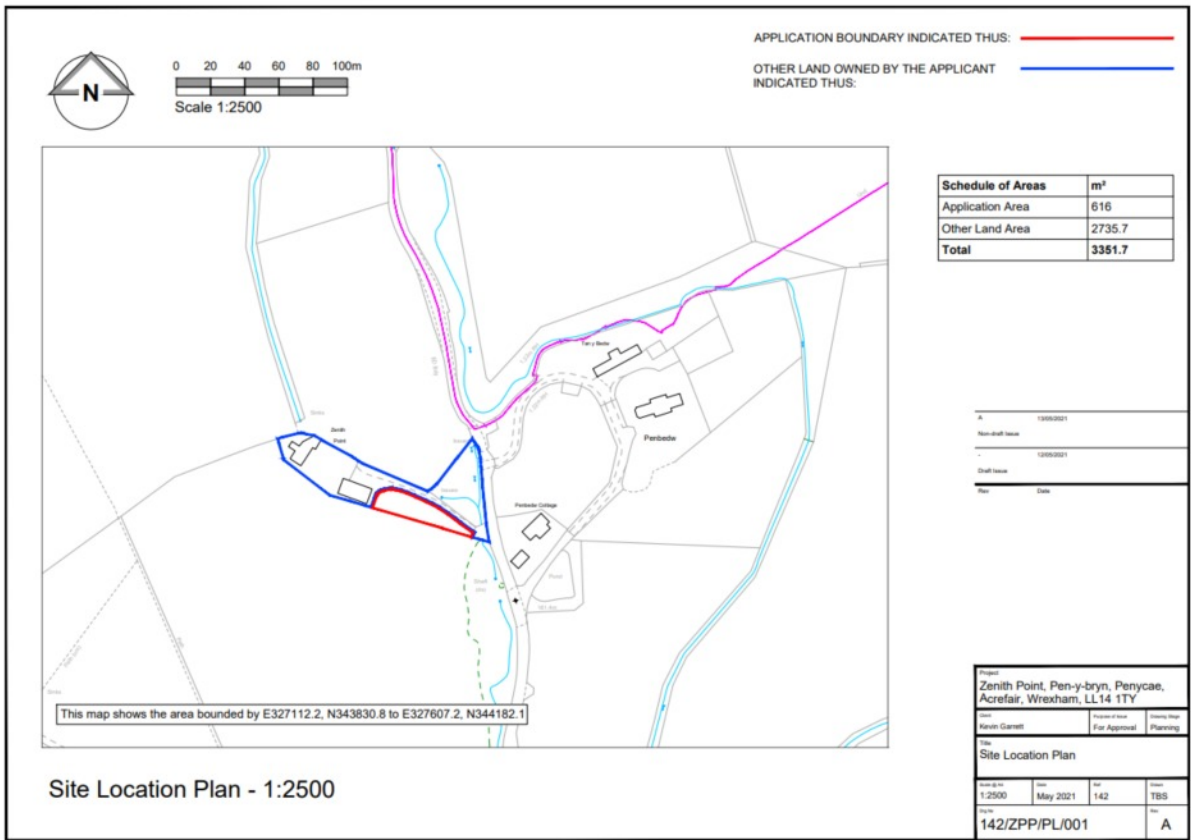
Wildlife and Habitat Conservation available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

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

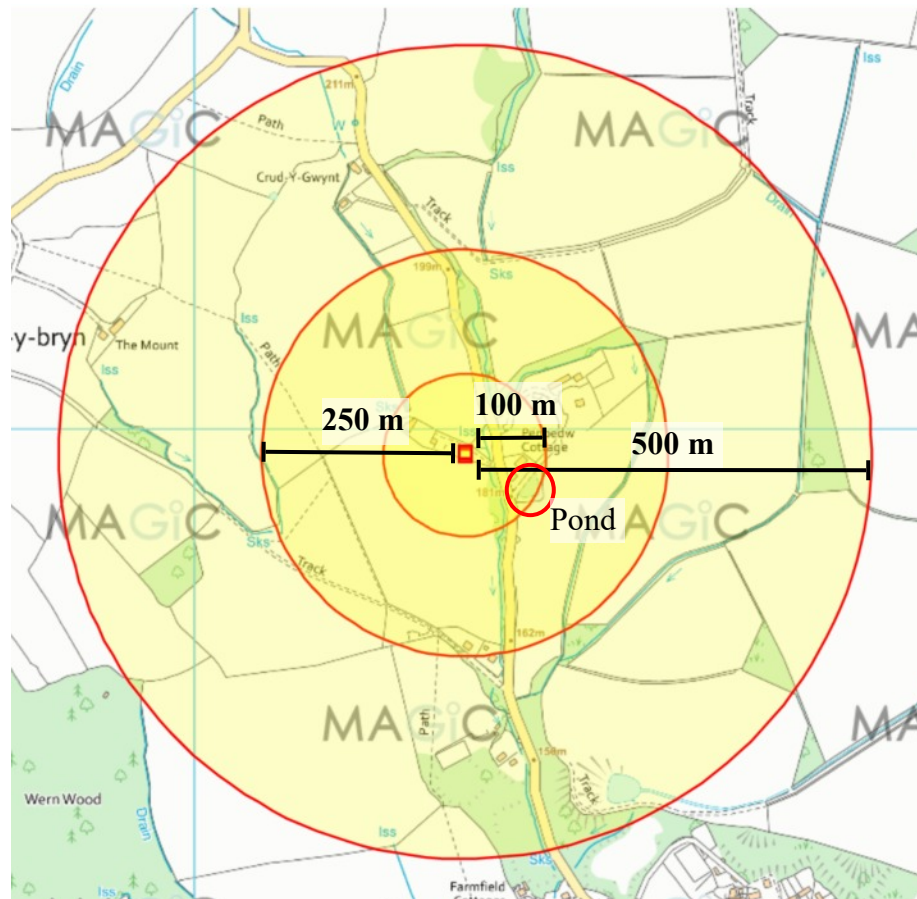
Appendix 13.1: Plan as Proposed



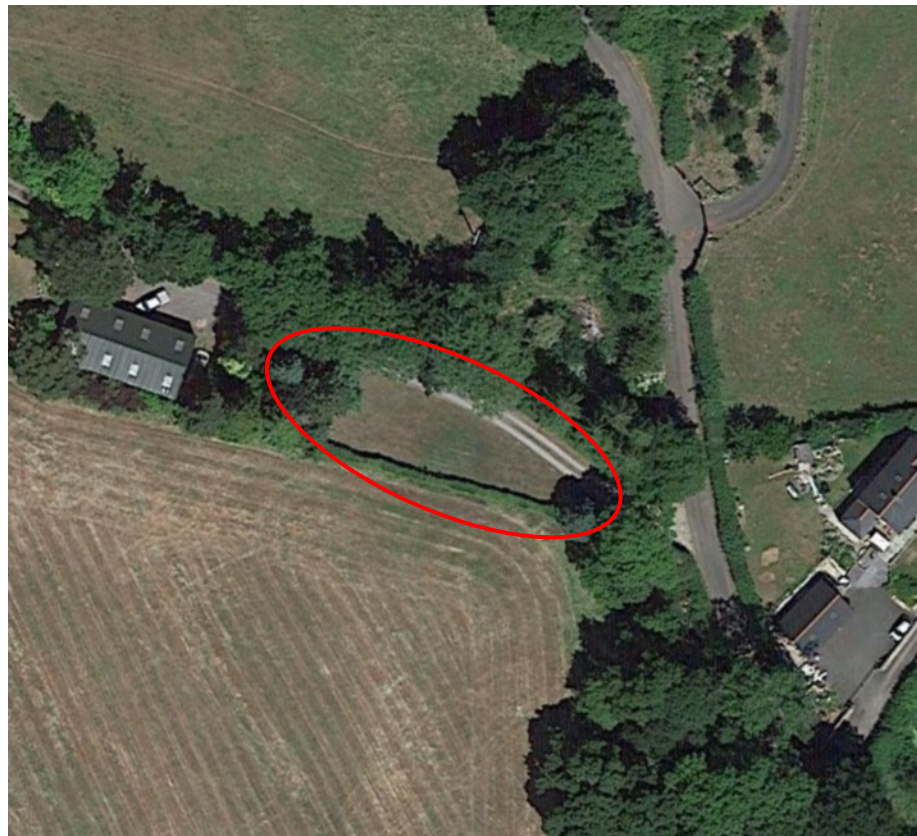
Appendix 13.1: Location Plan



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



Appendix 13.3: Aerial Photograph



Appendix 13.4: Photographs

View from the east



View from the north west



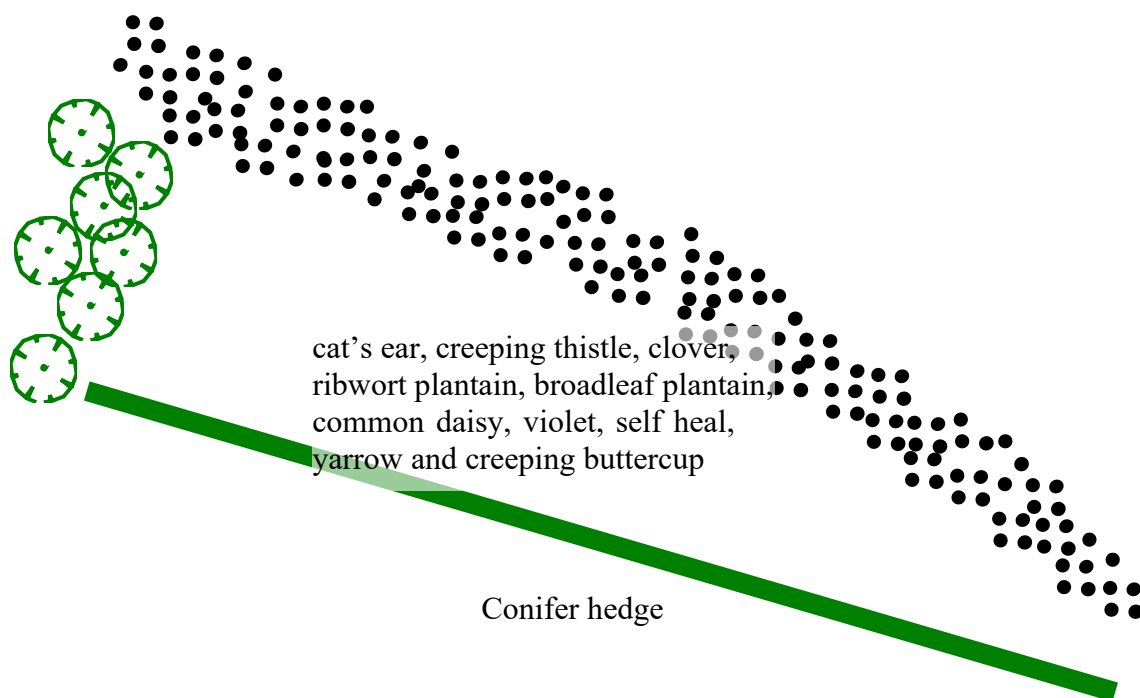
Pond



Ditch



Appendix 13.5: Survey Diagram



Appendix 13.7: Habitat Suitability Index for the Pond

		Score	SI
Location		A	1
Pond Area		430	1
Pond drying		never	0.9
Water quality (invertebrate density & character)		poor	0.33
Shade	perimeter shaded to 1m from shore	90	0.4
Fowl		absent	1
Fish		absent	1
Number of ponds within 1km		3	0.6
Terrestrial Habitat		moderate	0.67
Macrophytes	% surface area occupied by macrophyte cover	0	0.3
	Product	0.0143273	
	HSI score		0.654
Pond suitability for great crested newts is	average		

HSI Pond suitability
 <0.5 = poor
 0.5 – 0.59 = below average
 0.6 – 0.69 = average
 0.7 – 0.79 = good
 > 0.8 = excellent

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.