

Ecological Impact Assessment at
Bettisfield Boatyard,
The Moorings, Bettisfield,
Whitchurch,
Shropshire SY13 2LJ
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1. Summary

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

The proposed scheme entails the demolition of a shed and construction of a dwelling and associated access.

The land 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 of the site by great crested newts (GCN), bats, badgers, dormice and birds.

Impacts during the development should be low with respect to birds 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. Trees should not be felled between March and August to prevent harm to nesting birds. Impacts with respect to badgers, bats, birds and dormice are also considered to be low.

Compensatory tree and/or shrub planting may be necessary as described on page 8.

No lighting should be directed at the adjacent canal to avoid disturbance to commuting species such as otter and water vole.

No rare or threatened species of plants or animals were found on site or near the site, nor any invasive non native species.

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 Mr Bev Stokes of Stokes Design and Build, Waterside, Bettisfield.

The site, at Bettisfield Boatyard, Bettisfield, comprises approximately 0.03 ha of hard standing, some vegetation and a garage.

The proposed scheme entails the demolition of a shed and construction of a dwelling and 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 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, otter, water vole, amphibians and reptiles, and might contain protected plant species.

3.2. Desk Study

Wrexham and Shropshire Planning Portals were 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.

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 and buildings were assessed for suitability for use by bats and birds. The site and surrounding habitat was examined for signs of use by badgers and dormice. 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 areas and those of relevance are shown in the appendices.

The visual assessment of the site was carried out in accordance with CIEEM guidelines (CIEEM 2017) on 24th May 2021 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Ferns, Whixall and Bettisfield Mosses (NNR) and Ferns, Whixall, Bettisfield, Wem and Cadney Mosses (SSSI and SAC) and Midland Meres and Mosses Phase 2 (Ramsar) 1.2 km east.

4.2 Habitats

Site: The site is in the village of Bettisfield which is 6 km from the small market town of Ellesmere. The total area of the site is approximately 0.04 ha. There is a shed at the corner of the site which is constructed of concrete. The roof is pitched corrugated asbestos or fibre cement with a wood frame. It was considered to have negligible bat roost potential.

Trees and hedgerows: There are two semi mature trees on the site.

Adjacent land: The canal is adjacent. The nearest woodland is 1.1 km south east. There are no rivers within 500 m. There is one pond is 90 m north, on the far side of the canal.

4.3 Species and Species Groups

Plants: Species found on site:

Ivy (<i>Hedera helix</i>)	Elder (<i>Sambucus nigra</i>)	Hawthorn (<i>Crataegus monogyna</i>)
Perennial ryegrass (<i>Lolium perenne</i>)	Bramble (<i>Rubus fruticosus</i>)	Sycamore (<i>Acer pseudoplatanus</i>)
Common nettle (<i>Urtica dioica</i>)	Cleavers (<i>Galium aparine</i>)	Cow parsley (<i>Anthriscus sylvestris</i>)
Cow parsley (<i>Anthriscus sylvestris</i> .)	Creeping buttercup (<i>Ranunculus repens</i>)	Plantain (<i>Plantago</i> sp.)
Rhododendron	Rosebay willowherb (<i>Epilobium angustifolium</i>)	Creeping cinquefoil (<i>Potentilla reptans</i>)
Rose (<i>Rosa</i> sp.)	White clover (<i>Trifolium repens</i>)	Herb robert (<i>Geranium robertianum</i>)
Blackthorn (<i>Prunus spinosa</i>)	Dock (<i>Rumex</i> sp.)	Cotoneaster
Creeping buttercup (<i>Ranunculus repens</i>)	Dandelion (<i>Taraxacum officinale</i>)	Rowan (<i>Sorbus aucuparia</i>)
Daisy (<i>Bellis perennis</i>)	Snowberry (<i>Symphoricarpos albus</i>)	Cranesbill (<i>Geranium</i> sp.)
Forget-me-not (<i>Myosotis</i> sp.)	Chickweed (<i>Stellaria media</i>)	

No rare or threatened species of plants were found on site or near the site.

Amphibians and Reptiles

None seen during the initial survey. The nearest pond without any major barriers is 300 m from the site.

Birds

The rowan and birch trees and other shrubs on site could provide food and shelter for birds and also nesting potential.

Bats

The site is suitable for use by foraging and commuting bats.

Badgers

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

Dormice

No evidence of use by dormice was found, nor was the site suitable for use by them.

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

5. Description of the Development

The proposed scheme entails the construction of a dwelling with associated access. A concrete shed will be demolished. Two trees may be felled and some shrubs and vegetation 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 any nearby designated sites due to its small size and low ecological impact.

Habitats:

No priority habitat is affected by the proposal. The loss of vegetation will have a low impact on some invertebrate, bird and small mammal species. Diversity of plant species was quite high but there was a limited amount.

The creeping cinquefoil is an important species for the grizzled skipper butterfly and this will be transplanted to a suitable nearby area.

No lighting should be directed at the adjacent canal to avoid disturbance to commuting species such as otter and water vole.

Species:

Amphibians and Reptiles

No impact on great crested newts or other amphibians or reptiles is anticipated.

Birds

Trees should not be felled between March and August to prevent harm to nesting birds. If birds should gain access to the trees, shrubs or new house, and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Bats

No evidence of use by bats was found and the trees on site had no potential roost features. However the site is suitable for use by foraging and commuting bats.

A lighting plan should be designed in accordance with the Bat Conservation Trust guidelines:

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/>

Residual Effects

The loss of habitat will have a small effect on future foraging and commuting for some species, however the negative impact may be mitigated with compensatory planting of plant species with higher value and potential for use by wildlife.

7. Compensation

The rowan and birch trees will be retained if possible. However, if these need to be removed then at least one wildlife friendly native tree/shrub should 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

Bats: A bat box e.g. Schwegler 1FF to be fitted externally to the 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 if possible.

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

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. The nests 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.

Other designs of nest boxes may also be suitable.

9. Ecological Constraints

None identified.

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

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

Harris S, Cresswell P, Jefferies D (1989) *Surveying Badgers*. London: The Mammal Society

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>

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

Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*, Peterborough: English Nature

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

The National Vegetation Classification available at: jncc.defra.gov.uk

Rapid Risk Assessment Tool available at: <https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

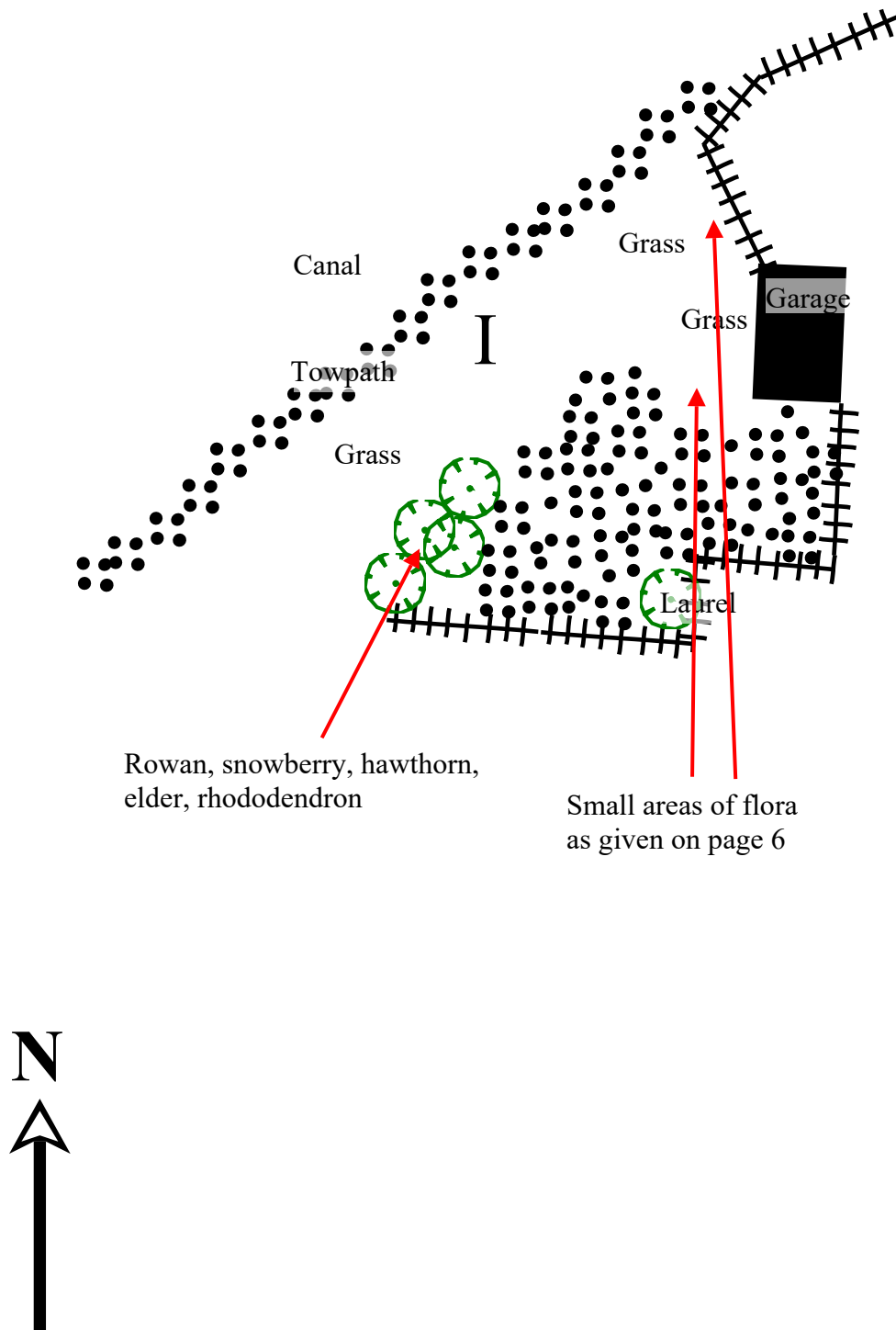
Shropshire Planning Portal available at: <https://pa.shropshire.gov.uk/online-applications/>

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

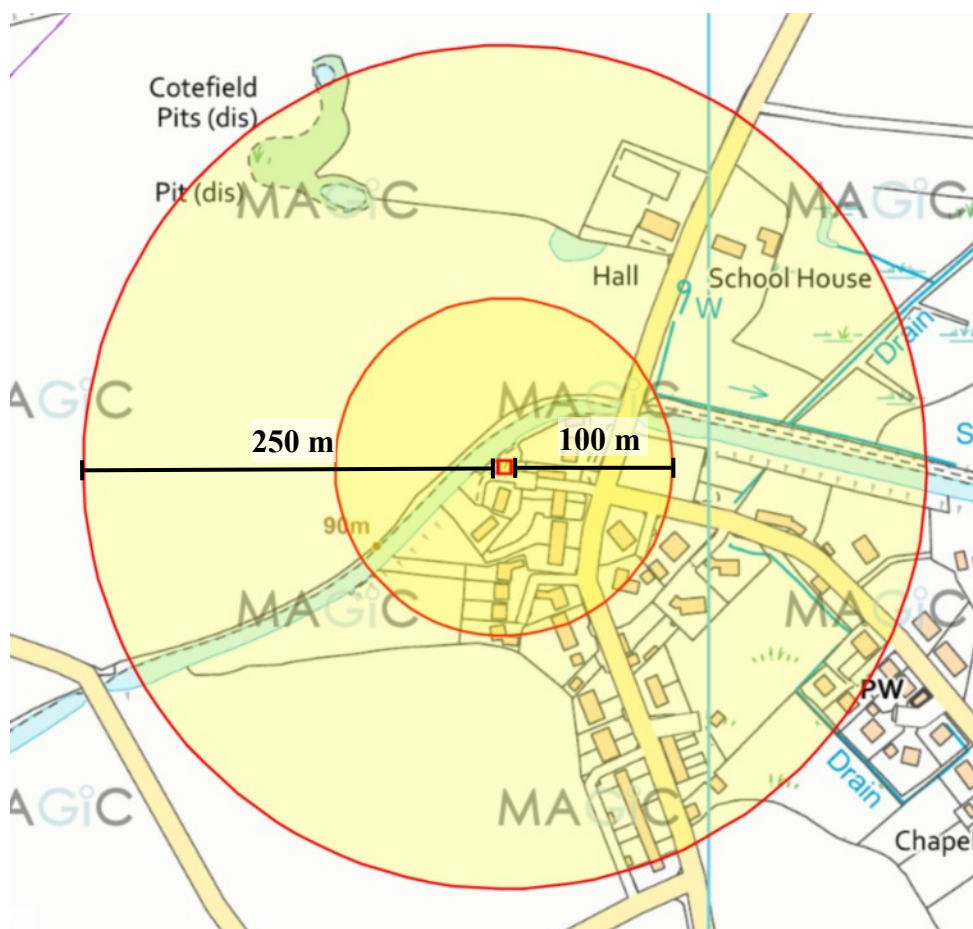
Wildlife and Habitat Conservation available at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>

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

Appendix 13.1: Survey Diagram



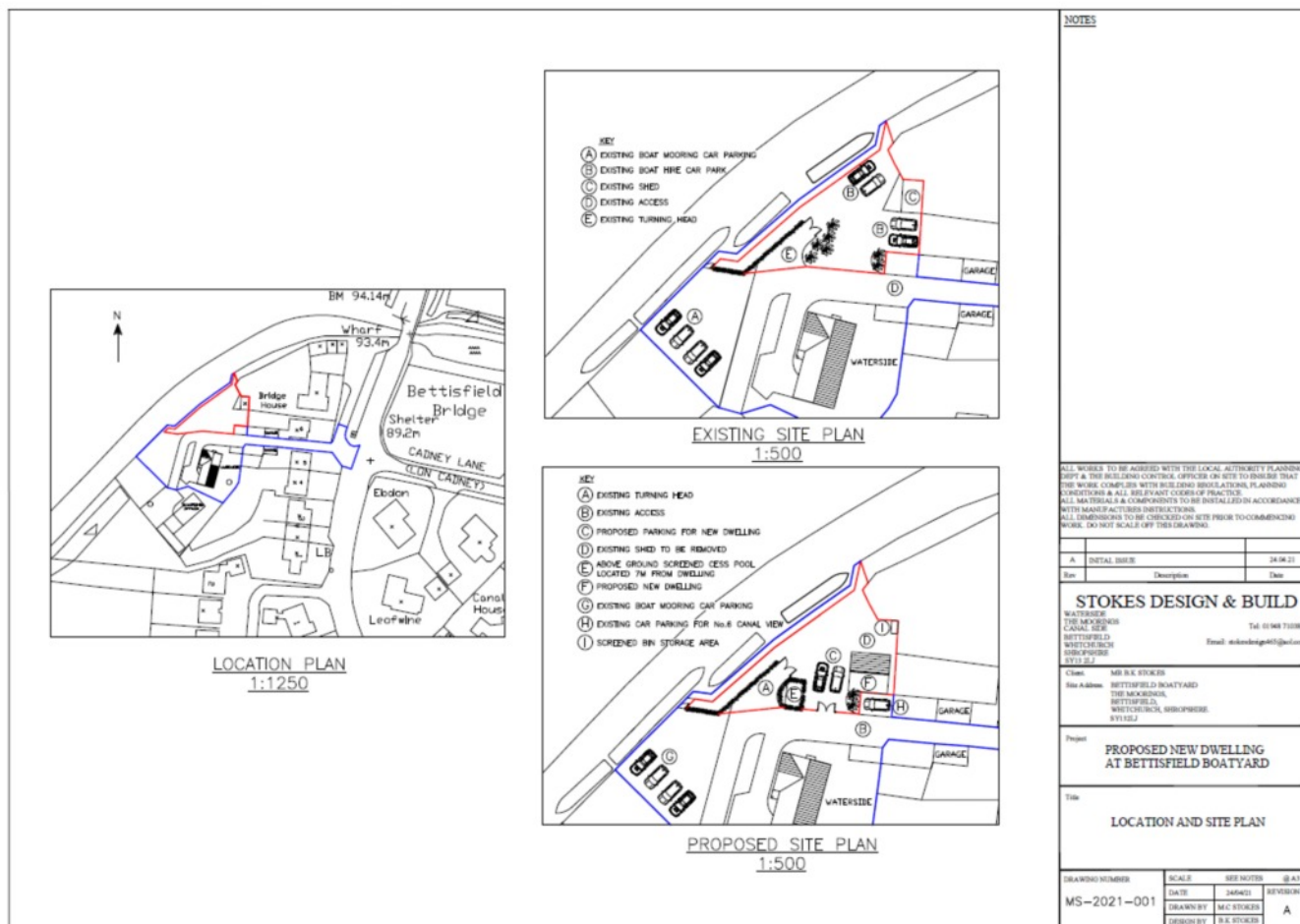
Appendix 13.2: Map Showing Zones of Influence and Designated Sites



Appendix 13.3: Aerial Photograph



Appendix 13.4: Site and Location Plan



Appendix 13.5: Photographs of the Site



Appendix 13.5: Photographs of the Site



Creeping cinquefoil

Appendix 13.6: Legislation Relating to Birds

All wild bird species, their eggs and nests are protected by law. You must always try to avoid harming birds or to use measures which do not kill or injure them before considering taking harmful action.

In most cases you should be able to avoid harming wild birds by:

- timing your work to avoid the breeding season
- using a range of methods that deter but don't harm them

In exceptional cases the law allows certain exemptions to permit legal activities (such as a development with planning permission) and where avoiding harm isn't possible.

What you must not do:

You're breaking the law if you:

- intentionally kill, injure or take wild birds
- intentionally take, damage or destroy a wild bird's nest while it's being used or built
- intentionally take or destroy a wild bird's egg
- possess, control or transport live or dead wild birds, or parts of them, or their eggs
- sell wild birds or put them on display for sale
- use prohibited methods to kill or take wild birds

Some birds, known as 'schedule 1 birds', eg barn owls, have extra legal protection. For these bird species it's also an offence to do the following, either intentionally or by not taking enough care:

- disturb them while they're nesting, building a nest, in or near a nest that contains their young
- disturb their dependent young

You could get an unlimited fine and up to 6 months in prison for each offence if you're found guilty.

Activities that can harm birds

These activities can affect wild birds, particularly during breeding season:

- trimming or cutting trees, bushes, hedges and rough vegetation
- renovating, converting or demolishing a building
- creating disturbance, eg noise, lighting and vibration
- taking actions to prevent problems, eg shooting birds or removing nests

When you can get a licence

There are no licensing purposes to permit development or construction but there are ways you can continue development or construction when birds are present. These activities should rely upon the legal exemptions. You must make sure that you can comply fully with the terms of the exemption so that you don't break the law.

You can apply for a licence from Natural England or Natural Resources Wales in certain circumstances and for certain problems.

Licences are available for disturbing or harming birds for a limited number of reasons that include:

- preserve public health and safety
- preserve air safety
- do work for science, education or research
- prevent damage to crops or animal feed
- conserve plants and animals (including other wild birds)
- prevent damage to fisheries
- take part in photography, falconry, keeping or breeding birds