

Ecological Impact Assessment **at**
Wright's Garage, Hall Street, Penrycae,
Wrexham LL14 2RY
Grid Ref. SJ 2838 4519
On 14th October 2020

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1. Summary

The purpose of the report is to assess the potential ecological impacts of a proposed development at Wright's Garage, Penycae, Wrexham and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme entails the construction of eight dwellings with associated parking, access and gardens.

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 bats, reptiles and amphibians including great crested newts (GCN), badgers, dormice and birds.

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

Impacts during the development should be low with respect to birds and bats 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 the beginning of March and the end of September to avoid destruction of nests.

Reasonable avoidance measures should be taken with regard to reptiles and amphibians.

Compensatory planting and enhancements will be necessary as described in sections 7 and 9.

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);

Great crested newt licence registration number 2016-19947-CLS-CLS (NE) and S086057/1 (NRW)

This report was commissioned by Blueprint Architectural Services, Wrexham..

The area of the site, at Hall Street, Penrycae, Wrexham, is approximately 0.2 ha of a combination of bare ground and dense ruderal vegetation. The proposed scheme entails the construction of 8 dwellings with associated parking, access and gardens.

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, 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, badgers, dormice, amphibians and reptiles, and protected plant species.

3.2. Desk Study

Magic Maps was consulted for the presence of designated sites and protected habitats. A data search was commissioned by Cofnod which showed records of the invasive non-native species of Japanese knotweed (40 m north) and Harlequin ladybird (200 m east). There were also hedgehog records within 200 m, bat records within 300 m and an otter record within 400 m.

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 14th October 2020 by Susan Worsfold BSc (Hons) ACIEEM.

4. Baseline Ecological Conditions/Results

4.1 Designated Sites

The nearest designated site is Johnstown Newt Sites, (Site of Special Scientific Interest and Special Area of Conservation) 1.4 km north east.

4.2 Habitats

The site is in a village 6 km north west of the nearest town of Wrexham. The approximate area of the land to be affected is 0.2 ha. It was the site of a garage/car repair workshop (still visible on the aerial photograph) which has since been demolished. About 75% the site remains as bare concrete with some scattered ruderal vegetation, the remaining ground is dominated by brambles and nettles and descends down a steep slope at the northern side. There are mature trees along the north and east boundary which are to remain. Some trees near the mid section will need to be felled, see phase 1 diagram. None of the trees possessed any potential bat roost features. A full species list and phase 1 survey map follows.

Adjacent land: There is a road to the south and most of the surrounding land is residential. There is a small area of deciduous woodland adjacent and others within 200 m. The river Eitha runs west to east along the northern side of the site, 35 m from the north boundary at the nearest point. There are few hedgerows near the site apart from domestic ones, but there is a good network 300-400 m away. The nearest pond is 235 m south east and there appears to be only one other within 500 m.

4.3 Species and Species Groups

Plants: Species found on site:

(<i>Acer pseudoplatanus</i>)	Sycamore
(<i>Alchemilla mollis</i>) Lady's mantle	Lady's mantle
Bryophyta	Mosses
(<i>Buddleia</i> sp.)	Buddleia
(<i>Centranthus ruber</i>)	Red valerian
(<i>Cirsium vulgare</i>)	Spear thistle
(<i>Convolvulus arvensis</i>)	Bindweed
(<i>Crataegus monogyna</i>)	Hawthorn
(<i>Digitalis purpurea</i>)	Foxglove
(<i>Epilobium angustifolium</i>)	Rosebay willowherb
(<i>Fagus</i> sp.)	Beech
(<i>Fraxinus excelsior</i>)	Ash
(<i>Geranium robertianum</i>)	Herb robert
(<i>Heracleum sphondylium</i>)	Common hogweed
(<i>Jacobaea vulgaris</i>)	Ragwort
(<i>Leucanthemum vulgare</i>)	Oxeye daisy
(<i>Lolium perenne</i>)	Perennial ryegrass
(<i>Malus domestica</i>)	Apple
(<i>Plantago</i> sp.)	Plantain
(<i>Ranunculus repens</i>)	Creeping buttercup
(<i>Rubus fruticosus</i>)	Bramble
(<i>Rumex</i> sp.)	Dock
(<i>Sambucus nigra</i>)	Elder
(<i>Sonchus</i> sp.)	Sow thistle
(<i>Taraxacum</i> sp.)	Dandelion
(<i>Tussilago farfara</i>)	Colt's foot
(<i>Ulex</i> sp.)	Gorse
(<i>Urtica dioica</i>)	Common nettle

Birds

The trees 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 and the site was not favourable for use by them

Reptiles and Amphibians

None seen during the survey. The site is suitable for use by foraging and commuting reptiles and amphibians.

Otters

Otters have been recorded on the river, 400 m from the proposed development.

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

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

5. Description of the Development

The proposed scheme entails the clearance of ruderal vegetation and the construction of eight dwellings with associated parking, access and gardens. Several trees will need to be felled as shown on the survey diagram. Approximately section of hedgerow will need to be removed on the south boundary.

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 the small scale of the development and distance from the sites. The nearest is Johnstown Newt Sites which is 1.4 km from the site. There are only two ponds within 500 m of the site and it is considered unlikely that it would have any significant use by GCN. However, see below regarding general precautions.

Habitats:

No priority habitat is affected by the proposal. None of the trees possessed any potential bat roost features. Vegetation clearance should take place from the centre of the site, working outwards slowly to give any wildlife such as hedgehogs, voles and mice a chance to escape to the surrounding areas. The hedgerow at the southern boundary should be retained as much as possible. Pollution guidelines should be followed to prevent any impact on the river. Precautions must be taken during construction to avoid pollution of the river which runs along the bottom of the site, during and post development.

Species:

Amphibians and Reptiles

The site is suitable for use by foraging and commuting reptiles and amphibians. Therefore reasonable avoidance measures should be taken and during the development, as follows.

Vegetation removal should be done with care and by the most non-destructive method possible.

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

All 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 will be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.

Birds

The impacts which the proposed work might have on birds should be small, providing that no nests are occupied or being built at the time the work is done.

Trees should not be pruned or felled nor hedgerows removed between March and October to avoid potential destruction of nests.

If birds should gain access to the new buildings, and begin building nests during the work, then the work in that area must stop until the young have left the nests.

Otters

No lighting should be directed at the river to prevent disturbance to otters and other commuting species. The hedgerow at the northern boundary should form a further barrier to noise and disturbance.

Bats

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

A lighting plan should be designed in accordance with the BCT and ILP Guidance Note 8 Bats and Artificial Lighting: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

Residual Effects

The loss of low quality habitat without mitigation may have an effect on future foraging and commuting for some species. This can be offset by compensatory planting as described in section 7.

7. Compensation

Four native 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 to householders and a fairly manageable size.

8. Enhancement Recommendations (See annex 13.5).

Bats: A bat box e.g. Schwegler 1FF to be fitted externally to four of the new buildings. Further information is given in the bat box information pack available at <http://www.bats.org.uk/index.php>.

Birds: One woodcrete nests suitable for small birds such as robin, blackbird, tit species and sparrow to be incorporated into four of the new buildings at the northeast side. Artificial swallow nest to be fitted inside four garages/sheds/outbuildings.

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/garage 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. Under eaves would also be suitable but less preferable.

Hedgerow:

A hedgerow should be planted along the northern boundary, comprising at least four native species, such as hazel, hawthorn, holly, oak (*Quercus robur*), blackthorn (*Prunus spinosa*) and field maple (*Acer campestre*)

9. Ecological Constraints

The vegetation at the extreme borders of the site at eastern end of the northern edges was impenetrable, however enough was seen of the features to make a reasonable assessment of the land and species present or likely to be present.

11. Conclusions

If the recommended mitigation, compensation and enhancement measures are taken the overall ecological impacts of the proposed development should be low regarding most species.

12. Bibliography

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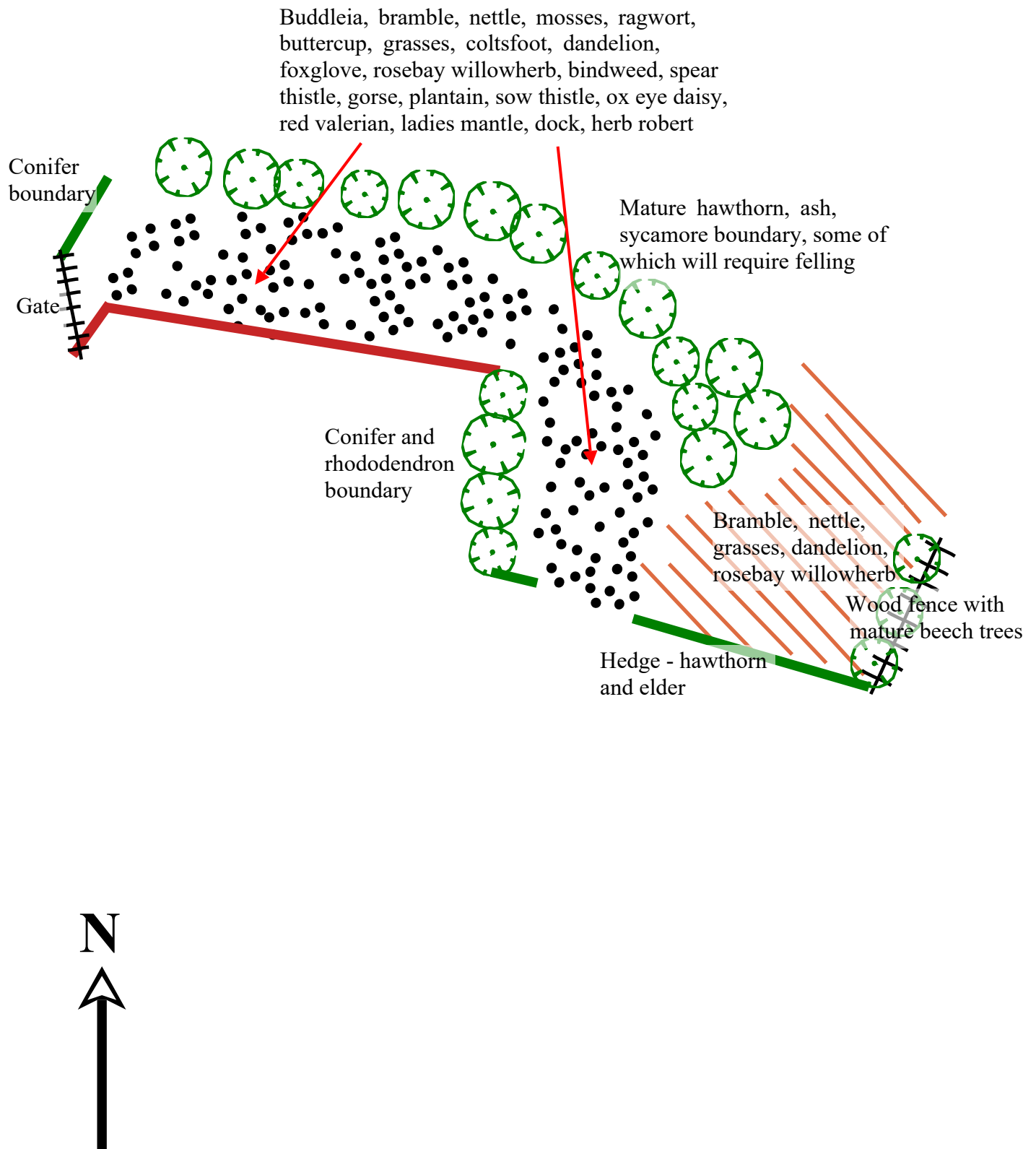
Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000) Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*) *Herpetological Journal* 10 (4), 143-155.

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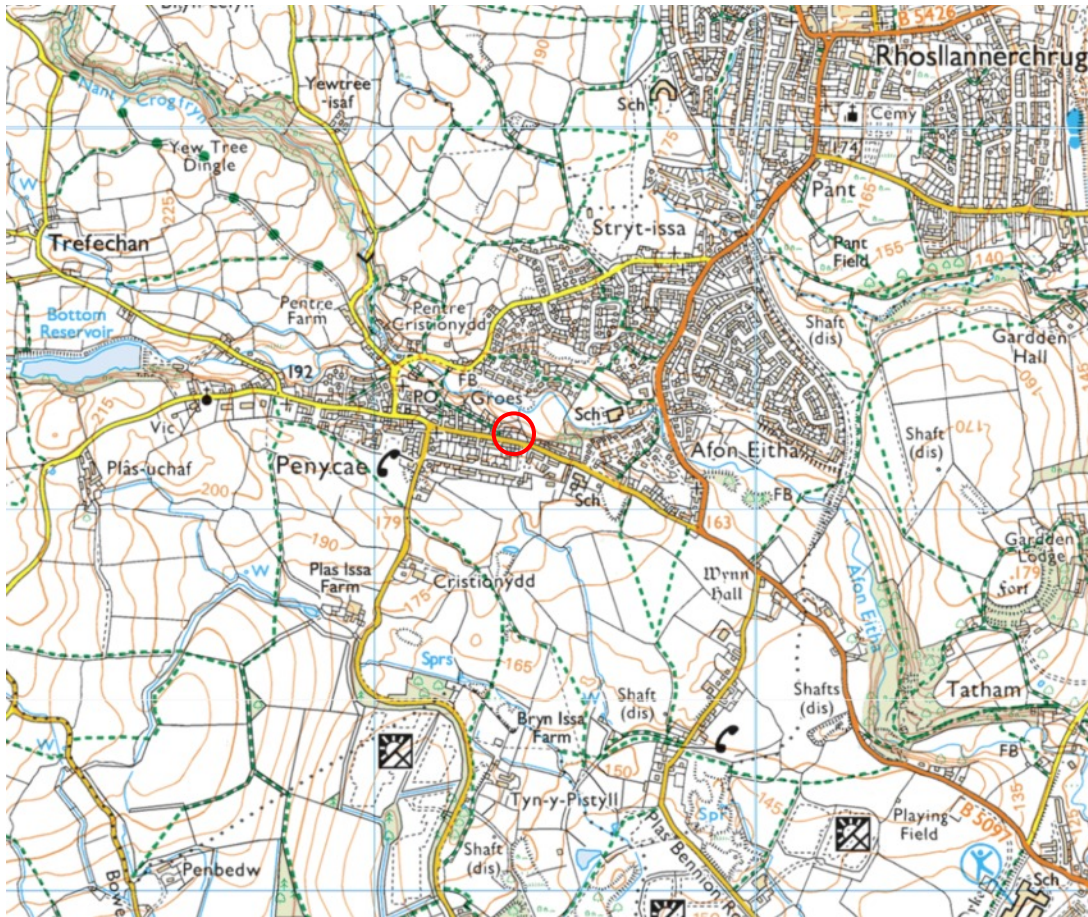
UK BAP Priority Habitats available at: jncc.defra.gov.uk

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

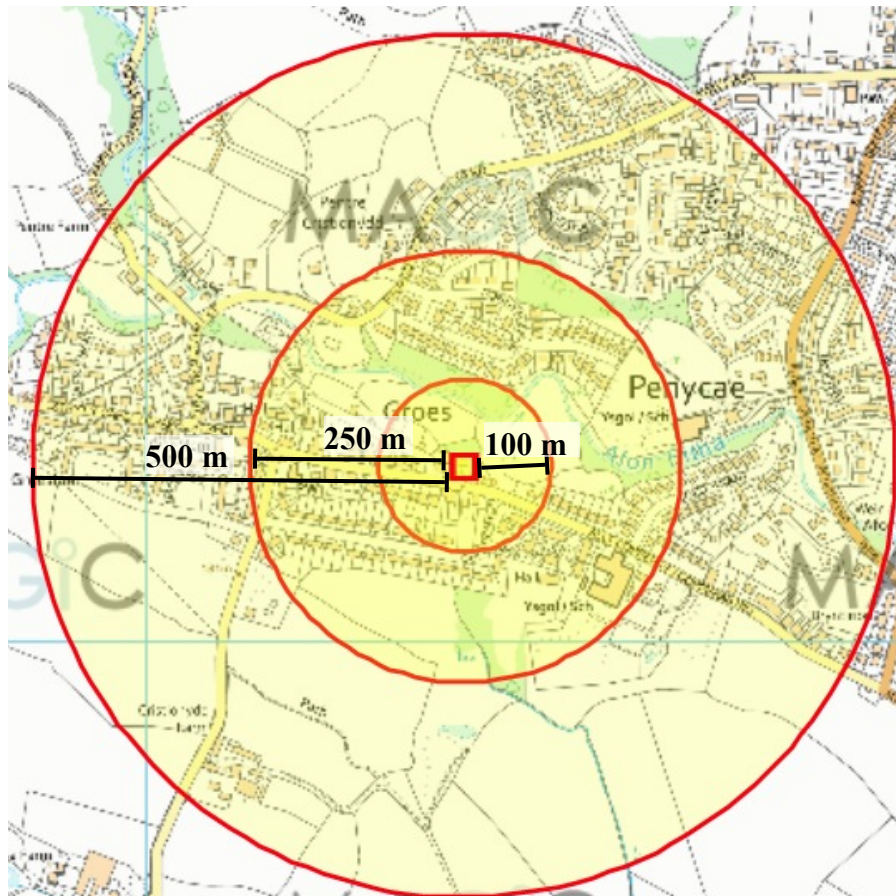
Appendix 13.1: Survey Diagram



Appendix 13.2: OS Location Map



Appendix 13.3: Map Showing Zones of Influence



Appendix 13.4: Aerial Photograph



Appendix 13.5: Proposed Plan



Building Parameters	Minimum level	Maximum level
Depth	7150	8300
Width	5520	15000
Height	4300	7515

L	05/15	Design Assents	D.J.E.
K	05/15	Design Assents	D.J.E.
J	05/15	Design Assents	D.J.E.
I	05/15	Design Assents	D.J.E.
H	05/15	Design Assents	D.J.E.
G	05/15	Design Assents	D.J.E.
F	05/15	Design Assents	D.J.E.
E	05/15	Design Assents	D.J.E.
D	05/15	Design Assents	D.J.E.
C	05/15	Design Assents	D.J.E.
B	05/15	Design Assents	D.J.E.
A	05/15	Design Assents	D.J.E.
Rev	Date	Detail	Initial

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1:500

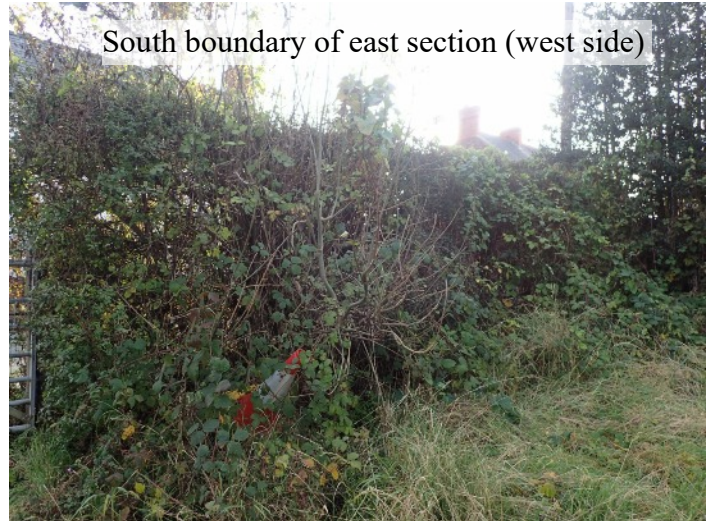
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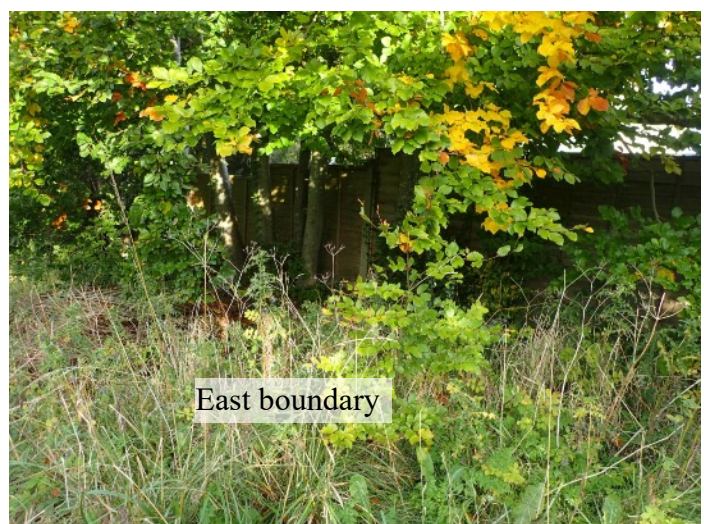
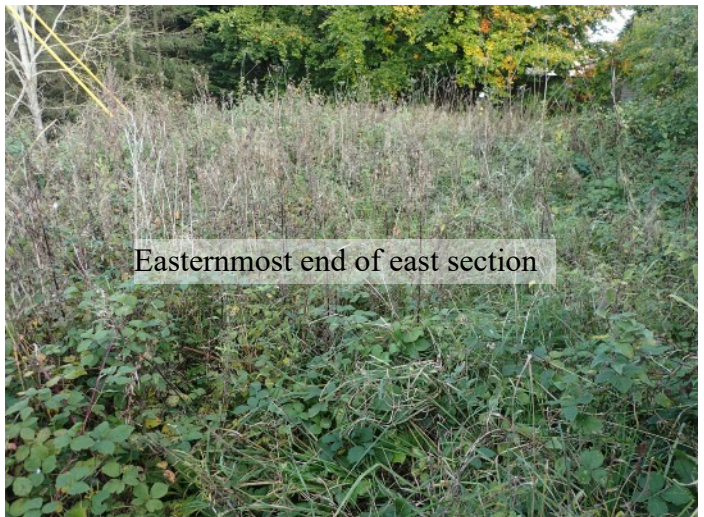
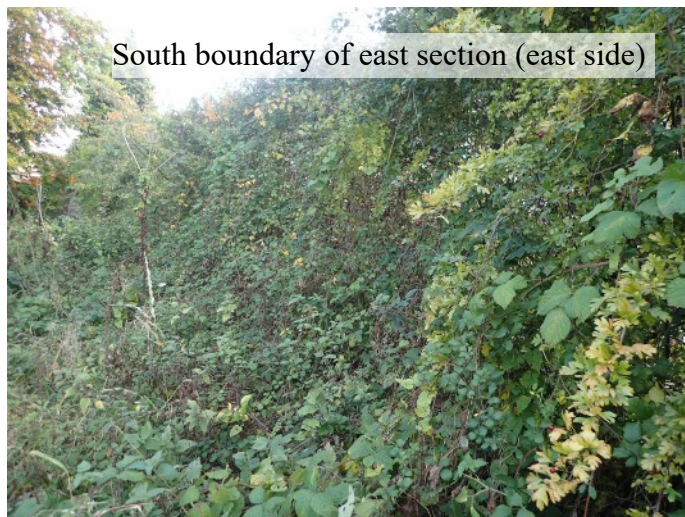
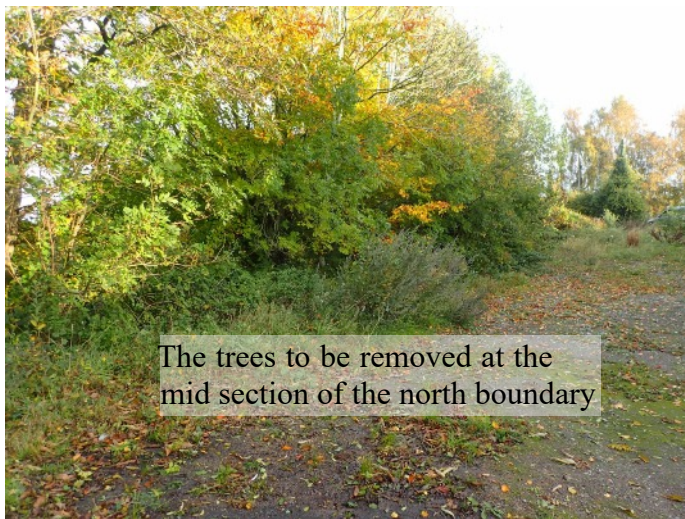
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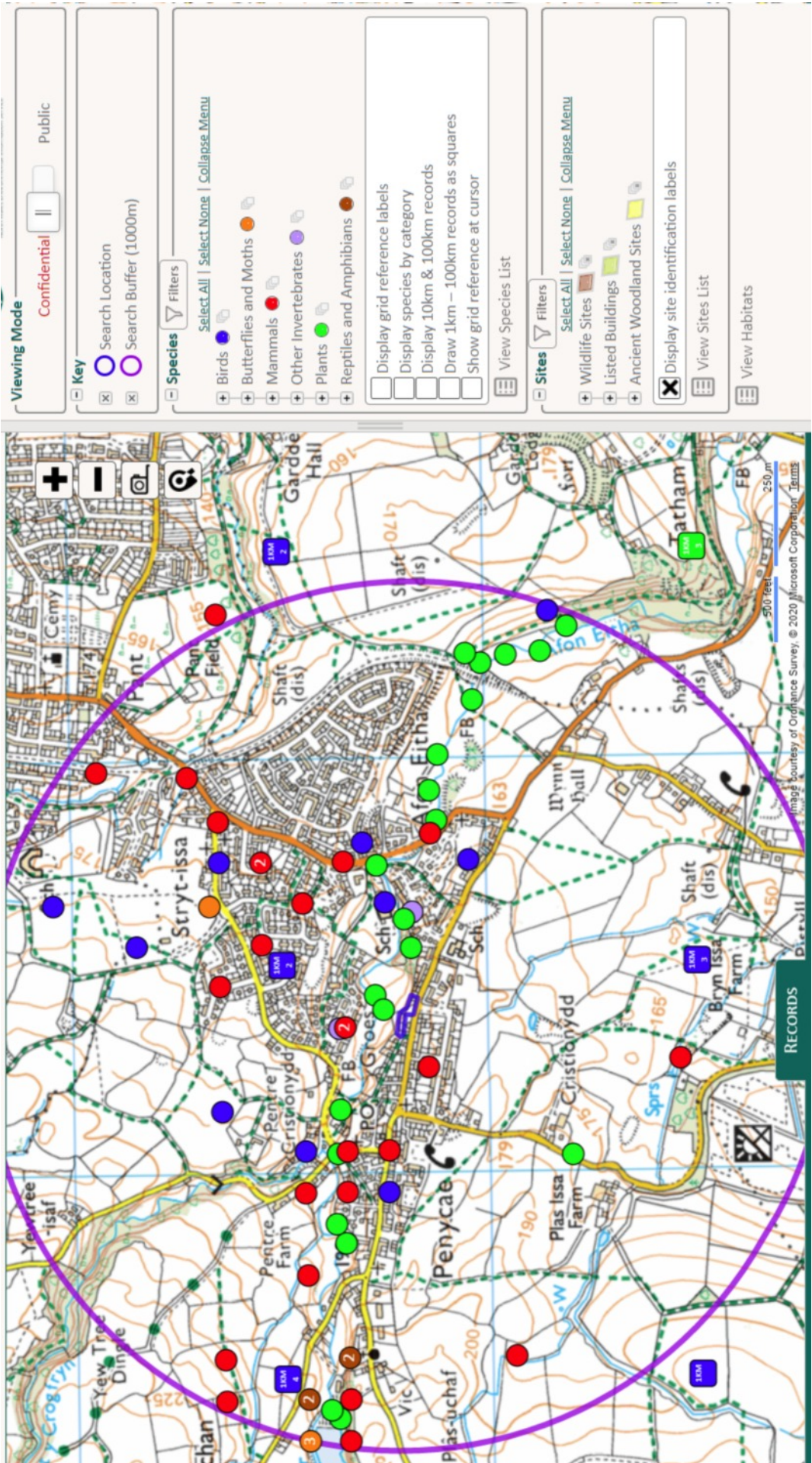
Appendix 13.6: Photographs of the Site



Appendix 13.6: Photographs of the Site



Appendix 13.7: Data Search (Cofnod)



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.