



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

RIDLEYWOOD FARM

Project name: Ridleywood Farm, Holt Road, Ridleywood,
Wrexham, LL13 9YA

Grid Reference: SJ39835114

Date: 09/03/2023

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the erection of an agricultural building at Ridleywood Farm, Wrexham.

Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

1.2 SCOPE OF SURVEY

The survey is primarily designed to:

- Identify and record habitats and important ecological features on site;
- Evaluate the potential of the proposed development site to provide opportunities for protected species;
- Determine any likely impact which the development and landscape proposals may have on these.
- Identify opportunities for the enhancement of habitats and biodiversity features on site.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

Ridleywood Farm is located along Holt Road at Ridleywood, Wrexham. The proposed agricultural building would sit at the south east end of the farm holding. The shed will occupy approximately 0.08ha.

The surrounding landscape is largely dominated by improved pasture, arable and farm holdings.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was composed to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap, Data Map Wales and NBN Atlas.

3.2 SITE SURVEY

A site visit was made on 24/02/2023. The survey was carried out in accordance with CIEEM (2017) best practice guidelines. The objective of the survey was to find and record any signs of use by protected species and to note the habitat features present.

An assessment of the available habitats both on and adjacent to the site led to consideration of the potential of the site for the following protected species:

- Badger
- Bats
- Breeding birds
- Great Crested Newt

The survey methodology was tailored to evaluate the area for these species in the following ways:

Badger

An area within 50 metres of the site was closely searched for the following signs of badger activity:

- Setts,
- Tracks and footprints,
- Latrines,

- Snuffle holes.

Bats

The site was assessed in terms of its suitability to support bat species. Hedgerow habitat and nearby potential habitat were assessed and recorded and potential impacts from the proposals considered.

Breeding birds

The site was assessed in terms of its suitability to support breeding bird populations. Hedgerow habitat and nearby potential habitat were assessed and recorded.

Great crested newt

A desk study and a ground search were conducted to search for any areas of open water within 250 metres. Waterbodies were then assessed based on the Habitat Suitability Index for great crested newts (Oldham et al., 2000 and ARG UK, 2010).

3.3 PERSONNEL

The survey was carried out by Phillipa Stirling MSc ACIEEM: Ecologist. Natural Resources Wales bat licence number: S091037-1 and GCN licence number: S089109-1.

3.4 CONSTRAINTS

Breeding birds would not have been present at the time of the survey but previous nesting and appropriate nesting sites would have been apparent.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 2km of the site there were the following designations:

Name	Designation	Distance from site
River Dee and Bala Lake	SSSI SAC	1.5km
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. ¹		

¹ **SSSI**: Site of Special Scientific Interest, **SAC**: Special Area of Conservation, **SPA**: Special Protection Area, **LWS**: Local Wildlife Site **NNR**: National Nature Reserve, **LNR**: Local Nature Reserve.

Results from the desk study revealed that within a 1km radius of the proposed development site the following protected species have been recorded:

Species	Distance	Protection
Birds		
Kestrel Redwing Fieldfare	0.8-1km	Wildlife and Countryside Act 1981.
Amphibians		
Great crested newt	0.9km	European Protected Species, Wildlife and Countryside Act 1981.

4.2 HABITATS ON SITE

All habitats are classified using JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010).

Hardstanding

An existing concrete pad extends into the survey area at the north side. Bare earth and a loose stone track are also found at the north boundary. There is a large pile of concrete rubble which occupies some of the survey area. The rubble has become colonised by bramble and coarse grasses.

Tall ruderal

Areas around the existing concrete pad, buildings and at the west side of the survey area are dominated by a mixture of tall ruderal species and coarse grasses. Species recorded on site include: bramble, red dead nettle, cock's foot, Yorkshire fog, creeping thistle, broad leaved dock, rose bay willow herb and white clover.

Improved grassland

Approximately 300m² of improved grassland makes up the survey area. The grassland area has a large bare patch of earth around a cattle feeder and species in the sward are limited to: perennial ryegrass, white clover, creeping thistle, broad leaved dock and chickweed.

Hedgerow

A section of species-poor native hedgerow runs through the middle of the survey area. Species recorded in the hedge include hawthorn, bramble and young ash trees. Bramble from the hedge has grown laterally to form a small bramble thicket.

4.3 ADJACENT HABITATS

Improved grassland

Land to the south of the site is made up of large open agriculturally improved fields. The grassland sward is generally limited to: perennial ryegrass, Yorkshire fog, white clover, chickweed, broad leaved dock and dandelion.

Hardstanding

Land to the north of the proposed site is dominated by a concrete farm yard.

Buildings

There are several large steel portal agricultural sheds to the north of the proposed site. The closest building, adjacent to the proposed plot, is a large open fronted steel frame livestock unit. The elevations are clad with Yorkshire boarding and concrete hardstanding is found throughout.

4.4 PROTECTED SPECIES

Badgers

There are no historical records of badger at the site and no field signs were found within the search area.

Bats

The site itself provides very limited opportunities for bat species. The surrounding modern agricultural buildings may provide some foraging opportunities for bat species.

Hedgerow and tree lines around the edges of surrounding fields may provide commuting/foraging opportunities for bats but there are no know/recorded bat roosts within 1km of the site.

Breeding birds

The hedgerow on site provides some opportunities for breeding birds given that it had formed a dense bramble thicket in places.

Great Crested Newt

No ponds are present within 250m of the site boundary and there are no records of GCN within 500m.

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

The proposals will result in the loss of approximately:

- 40m of species-poor native hedgerow,
- 300m² of improved grassland,
- 100m² of hardstanding,
- 400m² of concrete rubble and tall ruderal vegetation.

None of the habitats on site provide areas of particular ecological significance. All hedgerow loss will be mitigated.

The River Dee and Lake Bala SSSI/SAC is located 1.5km from the site. The proposals will have no impact upon this protected site.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The proposals will have no impact upon badger, their setts, or potential foraging areas.

Bats

The proposals will have no impact upon potential or known roosting sites.

Breeding birds

The removal of around 40m of hedgerow and any other vegetation has the potential to disturb breeding birds, if present. Mitigation will be required for works to proceed.

Great crested newt

There are no ponds present within 250m of the site boundary.

Studies have demonstrated that 95% of all summer refuges of GCN fall within 63m of their summer breeding pond (Jehle, 2000). Subsequent studies also found that capture rates of GCN were at their highest within 50m of a breeding site with a significant reduction in capture rates beyond 100m (Cresswell and Whitworth, 2004).

It is highly unlikely that GCN are present within the locality and therefore, the proposals will have no impact on this species.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

In order to replace all hedgerow losses on site, replacement hedgerow planting will be carried out around the edges of the newly formed building. The scheme will aim to re-plant double that to be lost on site.

6.2 PROTECTED SPECIES MITIGATION

Breeding birds

Where possible, all hedgerow and vegetation removal will be carried out during winter months in order to avoid the breeding bird season.

If this is not possible, all vegetation removal must be preceded by a thorough inspection to identify any potential nest sites. If any nesting activity is recorded, vegetation removal would have to be postponed until such a time that all nesting had finished.

6.3 ECOLOGICAL ENHANCEMENT

A total of 80m of species-rich native hedgerow will be planted along the new boundary of the site. Species will include: hawthorn, hazel, field maple, oak, elder, wild privet, Guelder rose and dog rose.

Hedgerow plants will be spaced in a staggered row at 6 per m². All plants will be fitted with guards and support canes and any losses within the first 3 years will be replaced. The base of the hedge will be kept clear of competing vegetation through either manual (preferred) or chemical control.

7 SUMMARY

Planning permission will be sought for the erection of an agricultural building at Ridleywood Farm, Wrexham. Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species. Key findings of the survey are:

- The proposals will result in the loss of approximately:
 - ❖ 40m of species-poor native hedgerow,
 - ❖ 300m² of improved grassland,
 - ❖ 100m² of hardstanding,
 - ❖ 400m² of concrete rubble and tall ruderal vegetation.
- None of the habitats on site provide areas of particular ecological significance. All hedgerow loss will be mitigated.
- The proposals will have no impact upon badger, their setts, or potential foraging areas.
- The proposals will have no impact upon potential or known roosting sites.
- The removal of around 40m of hedgerow and any other vegetation has the potential to disturb breeding birds, if present. Mitigation will be required for works to proceed.
- Where possible, all hedgerow and vegetation removal will be carried out during winter months in order to avoid the breeding bird season.
- There are no ponds present within 250m of the site boundary. It is highly unlikely that GCN are present within the locality and therefore, the proposals will have no impact on this species.
- A total of 80m of species-rich native hedgerow will be planted along the new boundary of the site.

8 REFERENCES

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FIGURE 1 LOCATION



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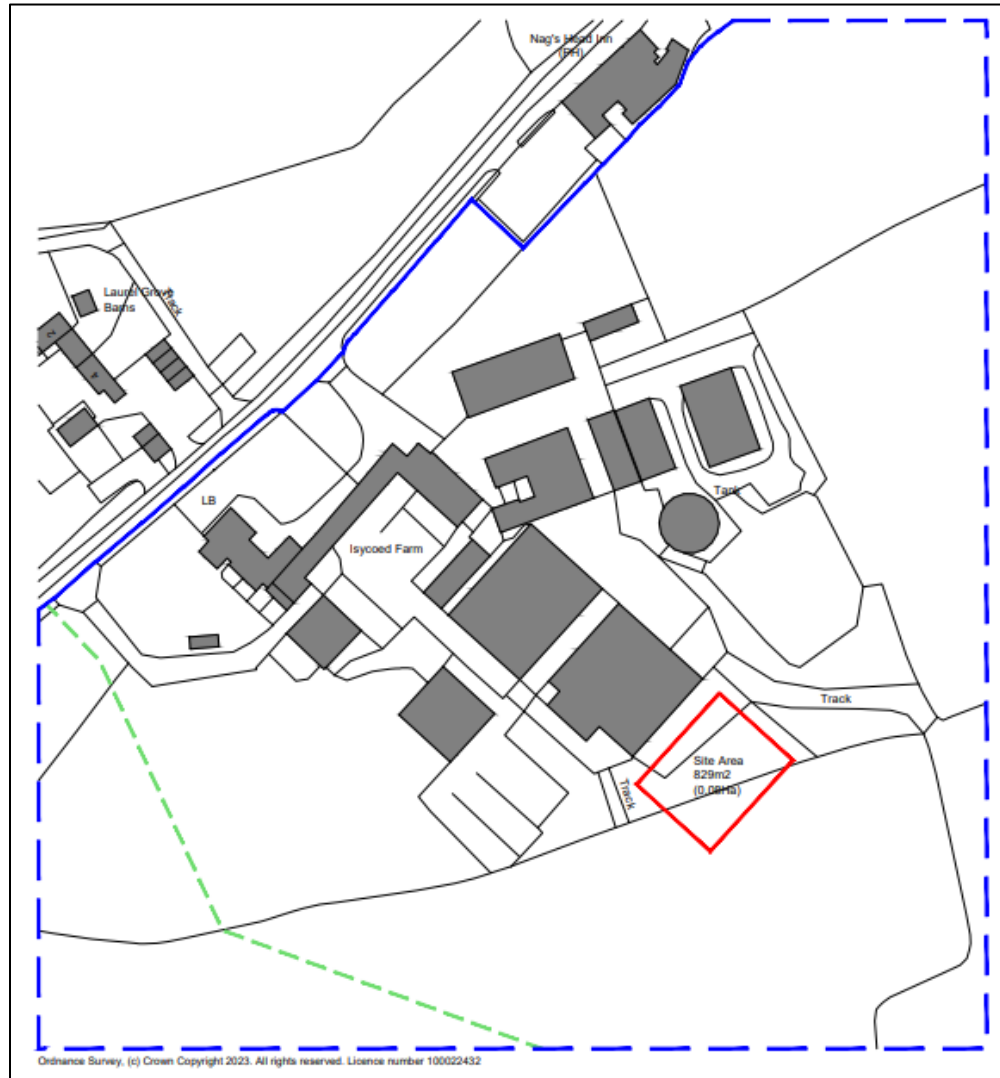
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FIGURE 2 AERIAL PHOTOGRAPH



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FIGURE 4 SITE PLAN



APPENDIX 1 PHOTOGRAPHS



The site and adjacent farm building.



Improved grassland and cattle feeding area.



Tall ruderal and hedgerow.



Hardstanding.

