



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: 23/08/2023

Prepared by: Phillipa Stirling BSc MSc ACIEEM

Reviewed by: William Prestwood BSc Director

Requested by: Roger Parry and Partners

Contents

1	INTRODUCTION.....	2
1.1	BACKGROUND TO DEVELOPMENT	2
1.2	SCOPE OF SURVEY	2
1.3	KEY PRINCIPLES	2
2	SITE DESCRIPTION	3
2.1	LOCATION, LANDSCAPE, AND BACKGROUND	3
3	SURVEY METHODOLOGY	3
3.1	DESK STUDY	3
3.2	SITE SURVEY	3
3.3	PERSONNEL	4
3.4	CONSTRAINTS	4
4	SURVEY RESULTS.....	4
4.1	DESK STUDY	4
4.2	HABITATS ON SITE	5
4.3	ADJACENT HABITATS	6
4.4	PROTECTED SPECIES	6
5	POTENTIAL ECOLOGICAL IMPACT	8
5.1	HABITAT ASSESSMENT	8
5.2	PROTECTED SPECIES ASSESSMENT	8
6	AVOIDANCE, MITIGATION AND ENHANCEMENT	9
6.1	HABITAT MITIGATION	9
6.2	PROTECTED SPECIES MITIGATION.....	9
6.3	ECOLOGICAL ENHANCEMENT	9
7	SUMMARY	10
8	REFERENCES	11
	FIGURE 1 LOCATION.....	12
	FIGURE 2 AERIAL PHOTOGRAPH	13
	APPENDIX 1 PHOTOGRAPHS	14

1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the change of use of agricultural buildings to commercial at Ridleywood Farm.

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 surrounding landscape is largely dominated by improved pasture, arable and farm holdings. The proposals will result in several large modern agricultural buildings being used in a commercial capacity.

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 8th August 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

There were no constraints to the survey being carried out according to all accepted guidelines.

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).

Building reference	Description
1	A steel framed structure, open at the south facing elevation. The roof is covered with corrugated fibre cement sheets and the elevations are partly covered with Yorkshire boarding. The building sits on a concrete pad and there are several skylights present along the roof.
2a	A steel framed Dutch barn with a corrugated tin roof and cladding at the elevations. Blockwork makes up low level walls at ground level and the building sits on a concrete pad. There is a half-pitch roof between the Dutch barn and a further steel framed building with a pitched roof. The building has a corrugated fibre cement roof and is open at the sides.
2b	A very small single storey brick barn with corrugated fibre cement roof, adjoining a further very small brick barn with a slate roof. The slates are lined internally but the roof is in poor condition. The verges are cemented and the structure sits on a concrete pad, opening out onto the yard.
3	A very large steel framed cow shed with blockwork at the wall base and corrugated fibre cement elevations and roof. Numerous sky lights sit along the pitched roof and the verges and ridge are capped with fibre cement material. The structure sits on a large concrete pad and has double width and height sliding doors.
4a	A steel framed open fronted shed with a corrugated fibre cement roof and numerous sky lights. There is blockwork at the wall base and corrugated tin sheets at the elevations. The building sits on a concrete pad.
4b	An open sided steel framed shelter with fibre cement roof and concrete floor.

5	A modern steel framed agricultural shed with box profile sheets on the roof and top third of the elevations. The building sits on a concrete floor and the wall bases are made up of pre-cast concrete panels.
---	--

Hardstanding

All of the buildings are surrounded by bare earth or concrete hardstanding.

Tall ruderal

Small patches of ruderal plant species have begun to colonise areas around the edges of the building, including: groundsel, common nettle, greater willowherb, white clover, dandelion and red leg.

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.

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

Building reference	Roosting potential
1	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.
2a	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.
2b	Some slipped slates visible from the external inspection and a handful of potential roosting features identified within e.g. at the top of the wall plate, beneath ridge tiles. Roosting features limited to small crevices,

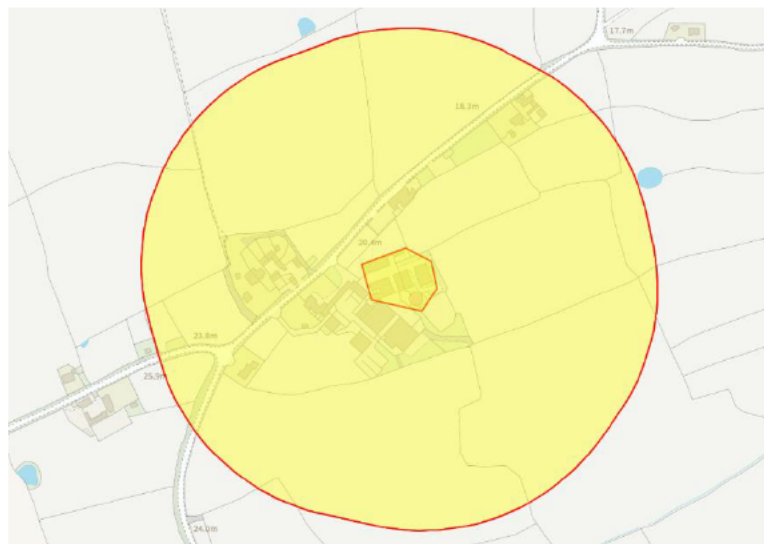
	largely external. No evidence of bats but in use by livestock so would not be apparent.
3	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.
4a	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.
4b	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.
5	No cavities or crevices, materials not suitable for roosting bats. No evidence of bats or potential roosting features identified. Day time conditions light and drafty, internal conditions not suitable for roosting bats.

Breeding birds

Several bird species were recorded on the site during the inspection, none were found to be nesting. Incidental records include: house sparrow, wagtail and blackbird.

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

None of the habitats on site provide areas of ecological significance and the change of use of the buildings will have no wider impact.

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 modern agricultural buildings on site do not provide any suitable roosting features which could be exploited by bat species and no evidence of bats was found during the inspection. No further survey work is required for building 1, 2a, 3, 4a, 4b and 5.

Building 2b provides 'low' suitability as a bat roost as per Table 4.1 of the Bat Conservation Trust survey guidelines. At least one bat activity survey will be required before any works can commence on this structure. The survey must be carried out between May and August in a given year, by suitably qualified surveyors.

Breeding birds

The buildings do not appear to provide nesting sites for birds and therefore the proposals are unlikely to have any impact. Precautionary measures will be required due to the open nature of the buildings.

Great crested newt

There are no ponds present within 250m of the site boundary and the site itself provides negligible value as terrestrial habitat for GCN.

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

Mitigation for habitats will not be required in this instance.

6.2 PROTECTED SPECIES MITIGATION

Bats

Further survey work will be needed before works begin on building 2b.

Breeding birds

Before works begin, a thorough internal and ground inspection will be carried out to check for any signs of breeding birds. If nesting activity is found, works in the area will be postponed until nesting is complete and all young have fledged.

6.3 ECOLOGICAL ENHANCEMENT

A wildlife box scheme will be adopted on site, following completion of any conversion work:

- Three Woodcrete open-fronted bird nest box. To be installed at least 2.5m from ground level with the entrance facing away from the prevailing wind.
- Three Woodcrete multi-brood chamber house sparrow terraces. To be positioned together in a line, at least 3m from the ground.
- Two Woodcrete multi-chamber bat boxes to be installed on a south facing gable, a minimum of 3m from ground level. No lighting will be installed within the vicinity of the boxes.

7 SUMMARY

Planning permission will be sought for the change of use of agricultural buildings to commercial as Ridleywood Farm. 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.

None of the habitats on site provide areas of ecological significance and the change of use of the buildings will have no wider impact. 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.

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

The modern agricultural buildings on site do not provide any suitable roosting features which could be exploited by bat species and no evidence of bats was found during the inspection. No further survey work is required for building 1, 2a, 3, 4a, 4b and 5.

Building 2b provides 'low' suitability as a bat roost as per Table 4.1 of the Bat Conservation Trust survey guidelines. At least one bat activity survey will be required before any works can commence on this structure.

The buildings do not appear to provide nesting sites for birds and therefore the proposals are unlikely to have any impact. Precautionary measures will be required due to the open nature of the buildings.

There are no ponds present within 250m of the site boundary and the site itself provides negligible value as terrestrial habitat for GCN. It is highly unlikely that GCN are present within the locality and therefore, the proposals will have no impact on this species.

A wildlife box scheme will be adopted on site, following completion of any conversion work:

- Three Woodcrete open-fronted bird nest box
- Three Woodcrete multi-brood chamber house sparrow terraces
- Two Woodcrete multi-chamber bat boxes

8 REFERENCES

ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

Cresswell, W. and Whitworth, R., 2004. An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt. Natural England Research Reports, p.36.

GOV.UK. (2015) Badgers: surveys and mitigation for development projects. [online] Available at: [Accessed 29 October 2021].

Harris, S., Creswell, P. and Jefferies, D. (1989) Surveying Badgers. 1st ed. London: The Mammal Society, pp.3-21.

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Jehle, Robert. (2000). The terrestrial summer habitat of radio-tracked great crested newts (*Triturus cristatus*) and marbled newts (*T. marmoratus*). Herpetological Journal. 10. 137-142.

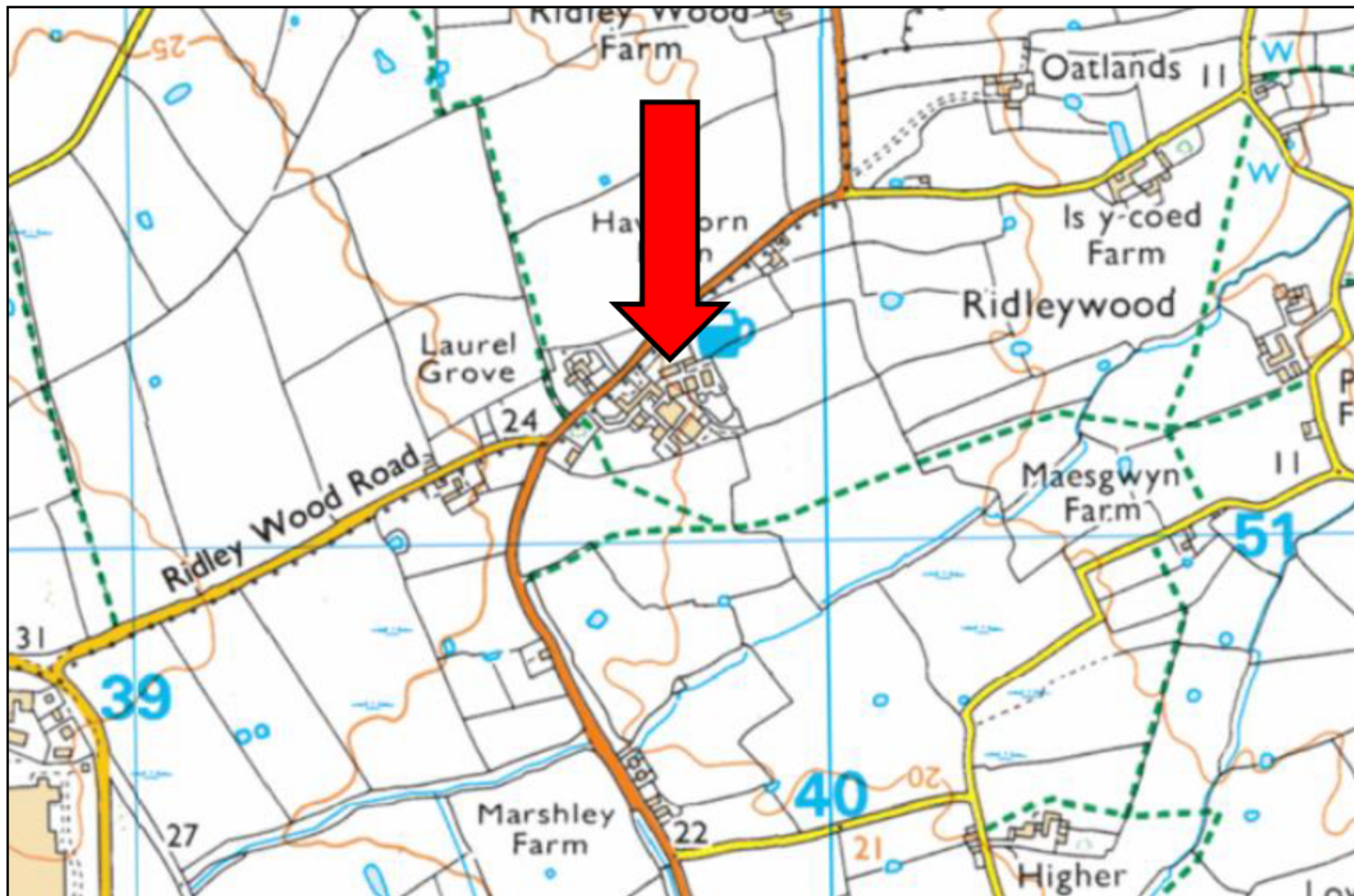
JNCC (2010) Handbook for Phase 1 habitat survey - a technique for environmental audit, ISBN 0 86139 636 7.

Mitchell-Jones, T. (2004) Bat mitigation guidelines. External Relations Team, English Nature.

Natural England (2002) Badgers and Development. 1st ed. Peterborough: Natural England, pp.2- 12.

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.

FIGURE 1 LOCATION



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

FIGURE 2 AERIAL PHOTOGRAPH



APPENDIX 1 PHOTOGRAPHS



1



2a



2a



2b



2b internal



3



ARBOR VITAE
ECOLOGY • FORESTRY • LAND USE



4a



4b



5



5



ARBOR VITAE
ECOLOGY • FORESTRY • LAND USE