



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE

PRELIMINARY ECOLOGICAL ASSESSMENT

LAND at HOLT LODGE, HOLT, WREXHAM



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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Arbor Vitae were commissioned to carry out a Preliminary Ecological Assessment of land adjacent to Holt Lodge near Wrexham. This land will be the subject of a planning application for the construction of a fishing pool associated infrastructure.

Such operations have the potential to disturb protected species, if present, and therefore Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal.

This report presents the results of a field survey carried out on 27 November 2020.

1.2 DETAILS OF PROPOSED WORKS

The proposals include the construction of a new fishing pool within a grass field. Access will be gained via an existing field entrance point off a minor road with a small length of hedge being removed to create a visibility splay.

1.3 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.

1.4 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

The proposed development site is located in a grass field to the north of Holt Lodge. The site lies in a rural setting 2.2 kms from the urbanised eastern fringes of Wrexham and 300 metres north of the Wrexham Industrial Estate. The site lies at 32 metres AOD in a generally flat agricultural landscape.

The field is currently used to take an annual hay crop.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was carried out to gain background information regarding protected species or designations within the area. The main sources of information were MagicMap and NBN Atlas.

3.2 SITE SURVEY

A site visit was made on 27 November 2020. 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:

- Badgers
- Bats
- Breeding birds
- Great crested newts

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

Badger

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

- Setts
- tracks and footprints
- latrines
- snuffle holes

Bats

Potential roosting features on site were noted and the site was assessed in terms of nearby connecting habitat and other features which could be of value to bats.

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 newts

A map and ground search were carried for any standing water bodies within 250 metres of the site. Any such bodies were assessed for their suitability to support great crested newts (GCN).

3.3 PERSONNEL

The survey was carried out by Will Prestwood BSc, an experienced ecologist.

3.4 CONSTRAINTS

There were no constraints on the survey being carried out according to accepted guidelines and standards.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that there are no designated sites within 1km of the site.

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
Common pipistrelle	1km	European Protected Species, Wildlife and Countryside Act 1981.
Brown long-eared bat	1km	European Protected Species, Wildlife and Countryside Act 1981.
Great crested newt	0.5km	European Protected Species, Wildlife and Countryside Act 1981.
Redwing	0.7km	Wildlife and Countryside Act 1981.
Fieldfare	0.7km	Wildlife and Countryside Act 1981.

4.2 HABITATS ON SITE

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

Improved grassland

The proposed site for the fishing pool is situated on improved grassland. This is dominated by cocksfoot and perennial ryegrass with very few herbaceous species. One single semi-mature lime tree lies in the centre of the proposed site.

Hedgerow

A mature, native, species-poor hedgerow forms the roadside boundary to the site. This comprised predominantly hawthorn with occasional blackthorn and dog rose.

Ground flora species are dominated by ruderal 'weed' species including nettle, cleavers and cow parsley.

A short length of hedgerow (approximately 30 metres) will be removed to create a visibility splay.

4.3 PROTECTED AND PRIORITY SPECIES

Badgers

A badger sett is located within and adjacent to a hedgerow on the western boundary. The sett is approximately 50 metres from the edge of the proposed pool. The sett is currently occupied.

Bats

There are no mature trees on the site which could provide roosting sites for bats.

Breeding birds

The site itself provides very few opportunities for breeding birds. The boundary hedgerows provide nesting opportunities. These hedgerows will be retained except for a short length which will be removed to improve the access. No nests were evident in this stretch of hedge.

Great crested newts

No standing water bodies exist within 250 metres of the site other than a balancing pond on the far side of a major road. It is therefore very unlikely that great crested newts use the site for foraging or hibernating.

5 EVALUATION OF RESULTS AND POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

Improved grassland

The construction of the pool and car park will result in the loss of approximately 0.5 hectares of improved grassland. This is of negligible ecological significance.

Hedgerows

Hedgerows are considered to be Habitats of Principal Importance (NERC Act). The construction of a visibility splay for the access road will involve the removal of approximately 30 metres of hedgerow. The hedgerow is not species-rich and does not qualify as an 'Important' hedgerow within the definitions of the Hedgerow Regulations. However, its loss will result in a small loss of possible bird nest sites.

The loss of the hedgerow will require compensatory planting of new native hedgerows.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The location of a badger sett within 50 metres of the area to be excavated requires that particular attention is paid to ensuring that no disturbance to the sett results from the earthworks. No large machinery must be used within 30 metres of the sett. A pre-commencement survey should be carried out by an ecologist to ensure that the sett has not extended further into the site. High visibility plastic fencing should be erected on a line 30 metres from the sett to ensure that no heavy machinery operated closer than 30 metres from the sett.

Bats

There will be no increase in external illumination which may have an impact on the behaviour of nocturnal wildlife including bats using nearby habitats, notably adjacent hedgerows.

Breeding birds

There may be some limited loss of nest sites in the roadside hedgerow. Habitat creation including tree and hedgerow planting will compensate for this loss. Any hedgerow removal should be carried out outside the bird nesting season.

Great crested newts

The absence of potential breeding ponds within 250 metres renders it highly unlikely that GCN use the field as part of their terrestrial habitat.

6 MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

No habitat of high ecological significance will be lost and no specific mitigation is required. However, the loss of hedgerow will require compensation planting to be undertaken.

6.2 PROTECTED SPECIES MITIGATION

Badgers

Work on site should pay heed to the reasonable Avoidance Measures (see Appendix2) which sets out measures designed to ensure that the badger sett is not disturbed and that no accidental harm is caused to badgers.

Breeding birds

Hedgerow removal will be carried out outside the nesting season and hedgerow will be replaced with species-rich native hedgerows containing shrubs which provide nesting cover and food resources for birds. Precautions to avoid disturbance to nesting birds will be included within the Reasonable Avoidance Measures.

6.3 ECOLOGICAL ENHANCEMENT

The scheme offers potential for enhancement of nearby habitats and the creation of new habitat features to benefit biodiversity. These will include:

- Planting of new native hedgerow around parking area and new access.

- Planting of an area (0.4 ha) of native tree species to create an area of native woodland.
- Planting of individual native specimen trees within the site to create a parkland landscape.
- Sowing of grass and wildflower meadow.
- Erection of bat and bird boxes within mature trees on the eastern boundary of the field.

Habitats – hedgerows

Approximately 150 metres of new native hedgerow will be planted on the perimeter of the proposed car park and access to create additional wildlife habitat and corridor. Species will include hawthorn, blackthorn, hazel, field maple, dogwood, guelder rose, holly and wild privet. Trees will be included at approximately 10-15 metre intervals and will include oak and wild cherry.

Woodland planting

A new area of native woodland will be planted to the west of the site. This will improve screening and also create additional wildlife habitat. This will comprise locally native species including sessile oak, silver birch, rowan, wild cherry and hazel.

Specimen trees

These will be planted within the site to create a parkland landscape.

Wildflower meadow

Topsoil will be removed from approximately 0.5 ha of the field and a grass/wildflower mix will be sown in the poorer subsoil. This will be managed in accordance with a CEMP to optimise its botanical diversity.

Species – Bats

Roosting opportunities for bats will be improved by erecting three bat boxes in mature trees on the eastern boundary of the field. These should be Schwegler Type 2FN boxes.

Species – Birds

Nesting opportunities will be improved for birds by erecting six bird nest boxes in mature trees. These should include six Seville Woodstone nest boxes.

7 SUMMARY AND CONCLUSION

Planning permission is being sought for the construction of a new fishing lake on grassland to the east of Holt Lodge Farm near Wrexham. Arbor Vitae were asked by Roger Parry and Partners to undertake a Preliminary Ecological Assessment in order to evaluate the ecological interest of the site and examine any possible impact of the proposed development.

The survey found that the development will occupy an area of improved grassland which is currently of minor ecological interest. The creation of a visibility splay will remove a length of species-poor hedgerow which will have a minor impact on birds and will require compensation planting.

The field in which the proposed lake will be constructed supports an active badger sett, located beneath a hedgerow on the northern boundary. Other than this, the site itself holds very little potential for protected species and no evidence was recorded. The boundary hedgerows inevitably provide nest sites for birds and the loss of a short length to created access will reduce opportunities for birds.

The ecological impact on habitats and protected species is minimal and mitigation/compensation will remove any residual impact. Mitigation will include carrying out work using RAMS to protect badgers. These will include ensuring that no excavations are carried out within 30 metres of the sett. Compensation for loss of habitat for breeding birds will involve replacement of the roadside hedge and extensive native tree planting.

There are several opportunities for enhancing opportunities for biodiversity. Habitat creation measures will include hedgerow planting, tree and woodland establishment and wildflower meadow creation. Measures to improve opportunities for individual species will include erection of bat and bird boxes.

REFERENCES

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FIGURE 1 LOCATION. 1:50,000

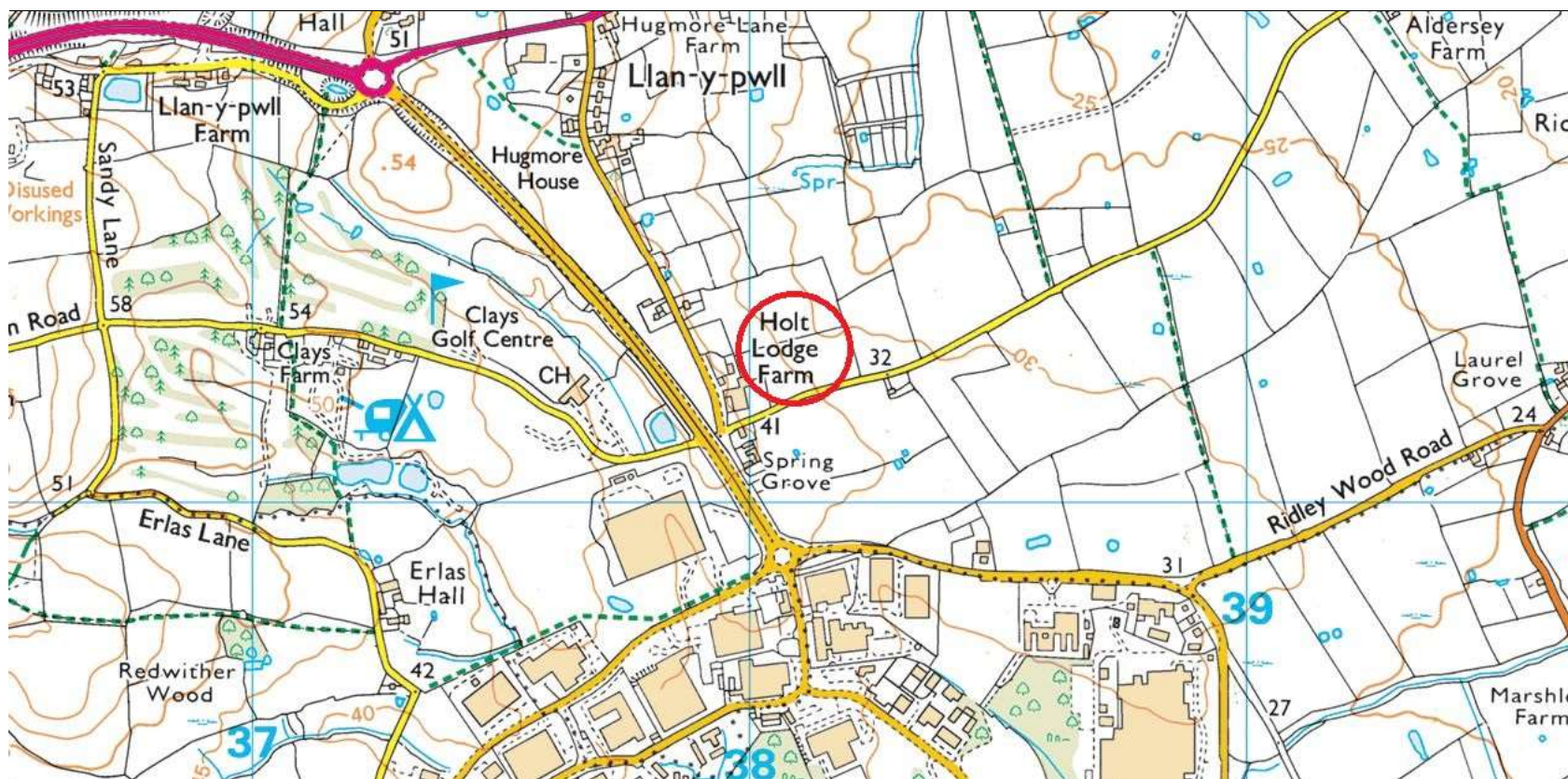


FIGURE 2 AERIAL PHOTOGRAPH



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APPENDIX 1 PHOTOGRAPHS

	THE PROPOSED POND SITE
	HEDGEROW ALONG NORTHERN BOUNDARY WITH BADGER SETT
	HEDGEROW BY SITE EXISTING ENTRANCE. APPROXIMATELY 50 METRES HEDGE TO BE REMOVED.



APPENDIX 2 BADGERS: REASONABLE AVOIDANCE MEASURES

The aim of the following avoidance measures is to eliminate as far as possible the risk of disturbing badgers during and after the creation of the fishing lake at Holt Lodge.

Induction of contractors

- A toolbox talk will be given to all site personnel in order to make them aware of the possible presence of badgers, their responsibility to avoid disturbing them, and the avoidance measures to be used on site.
- A paper copy of the avoidance measures will be retained on site together with the contact details of the issuing ecologist.

Site layout

- An occupied badger sett exists in the north east section of the field adjacent to a hedgerow. The sett is approximately 50 metres from the edge of the proposed pool.
- A **30 meter** buffer zone should be left between the sett and the area of excavation. A high visibility barrier fence must be erected to ensure that no heavy vehicles approach closer to the sett than the designated 30 metres.

On site protocols

- Any excavations/ditches should be either covered completely at night time, **or** an access ramp should be left within each separate excavation/ditch to allow badgers or other to escape should they fall in.
- Any chemicals or harmful substances should be kept within a locked container, off the ground and ideally within a structure on site.
- No fire or burning of materials is to take place within 30m of the woodland edge to the north of the site.

