



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

THE FARM, PARK LANE, PENLEY

Project name: The Farm, Park Lane, Penley

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Prepared by: William Prestwood BSc Director

Reviewed by: Phillipa Stirling MSc GradCIEEM

Requested by: Roger Parry and Partners



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Lower Betton Farm, Cross Houses, Shrewsbury, Shropshire, SY5 6JD

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the construction of a new house adjacent to an existing farmstead known as The Farm, Park Lane, Penley,

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

The plot is a small field adjacent to the A459 Whitchurch-Wrexham road 0.5 kms to the south east of Penley (Figure 1). The small field, a former orchard, lies to the east of existing farm buildings (Figure 2). It is currently unused. A further domestic property lies to the west with improved grass fields extending to the south and the A459 forming the northern boundary.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was carried out to gain background information regarding any 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 23/7/2020. 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

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 newts

A desk study and a ground search were conducted to search for any areas of open water within 250 meters. 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 William Prestwood BSc: experienced ecologist.

3.4 CONSTRAINTS

There were no constraints to the survey being carried out successfully.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 1km of the site there were no designated sites of ecological significance. The nearest SSSI is Hanmer Mere which lies 2.5 kms to the east.

The search included Ramsar, SSSI, SAC, SPA, LWS and LNR.¹

Results from the desk study revealed that within a 1km radius of the proposed development site no protected species have been recorded.

A number of birds listed on the Red or Amber list of Birds of Conservation Concern have been recorded, including reed bunting, kestrel, swallow, spotted flycatcher, house sparrow, willow warbler, dunnock and bullfinch.

4.2 HABITATS ON SITE

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

Hedgerow

Two hedgerows bound the site on the east and north sides. The eastern hedge is a garden hedge of the next-door property and consists of Leyland cypress.

The northern hedge alongside the road is a low, well-maintained hedge dominated by hawthorn.

The southern boundary to the field is a wire fence.

Grassland

The small field is a former orchard and still retains one mature pear tree and three young trees. The sward is improved grassland dominated throughout by perennial rye grass and white clover with patches of creeping thistle.

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

4.3 ADJACENT HABITATS

Buildings

A small range of both traditional and modern farm buildings lie adjacent to the site. The traditional buildings are used by swallows for nesting and have potential to support roosting bats.

Standing water

Five pond basins were identified from maps or on the ground within 250 metres of the site. Two of these to the north lie on the far side of the main road and were not assessed for their potential to support great crested newts.

Pond 1 is now dry and evidently has not held water for some time.

Pond 2, not marked on maps due its relatively recent formation, is also dry.

Pond 3 could not be accessed due to different ownership and its potential value to GCN could not be assessed.

4.4 PROTECTED SPECIES

Badgers

The nearest record for badgers is 0.8 kms from the site. The site may offer potential foraging habitat to this species. At the time of the survey there was no evidence on site to suggest that badgers are present within the area.

Bats

The site offers some limited foraging habitat for bats in the form of hedgerows.

Breeding birds

The hedgerows on site offer potential nesting sites to common species of farmland and garden birds. The degree of disturbance from the main road probably reduces this potential, particularly along the northern hedgerow. Two species were recorded on the survey: robin and dunnoek.

Great Crested Newt

Five ponds were identified within 250 metres of the suite. Two of these lie north of the main road which would constitute a significant barrier to dispersal of GCN.

Pond 1 is now devoid of standing water and does not provide suitable breeding habitat. The swamp vegetation which remains is notable in supporting a large population of the rare plant cowbane (*Cicuta virosa*).

Pond 2 is also dry and dominated by the grass floating sweet grass.

Pond 3 was not accessible and could not be assessed.

The nearest record of GCN is 0.9kms to the north west of the site. (NBN Atlas).

5 EVALUATION OF RESULTS AND POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

The proposals would result in the loss of approximately 0.1ha of improved grassland. This has no ecological significance.

The two hedgerows and mature pear tree would be protected from disturbance and retained.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The survey revealed no signs of badger on site and the nearest record for this species is approximately 0.8km away. The proposals are not thought to have any impact on this protected species and no further survey work is required.

Bats

The site offers very limited good-quality foraging habitat but the linear landscape features, including the mature tree and hedgerows, may offer commuting links for bat species in the local area.

Breeding birds

The hedgerows on site offer potential nesting sites for breeding birds and the construction works and post-development activity have the potential to disturb this.

Great crested newt

Two ponds within 250 metres do not provide suitable breeding for GCN due to a lack of standing water. Two further ponds to the north lie on the far side of a busy main road which is a significant barrier to dispersal.

The potential value of Pond 3 is unknown. However, as it lies 220 metres from the site, with less than optimal GCN habitat between the pond and the site, the risk to GCN is regarded as small. Reference to the Rapid Risk Assessment tool (Natural England) indicates that the risk of creating an offence is negligible.

6 MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

In consequence of the lack of existing ecological interest in the habitat to be lost (improved grassland), no specific habitat mitigation is required.

6.2 PROTECTED SPECIES MITIGATION

Bats

Any artificial lighting should be designed with nocturnal wildlife in mind. Guidance Note 8 from The Bat Conservation Trust should be used as a guide when designing the lighting on site. The following general recommendations are made:

- Hedgerows and key habitat features including mature trees on the site should not be illuminated in order to retain dark movement corridors for nocturnal wildlife. Illuminance along these features should be below 0.2 lux on the horizontal plane, and 0.4 lux on the vertical plane.
- Security lighting should be set on motion sensors with short timers (<1 minute) and should be LED lighting.
- External lights should be hooded and directed toward the ground to reduce upward light spill.
- A warm white spectrum should be adopted throughout the scheme to reduce blue light component (<2700Kelvin).
- Internal luminaires should be recessed where installed in proximity to windows to reduce glare and light spill. LED luminaires should be used internally where possible due to their sharp cut-off, lower intensity, and dimming capability.
- Luminaires should always be mounted horizontally with an upward light ratio of 0%.

Breeding birds

A thorough ground and internal inspection should be completed prior to works commencing on site if works start between 1st March and 31st August (inclusive) in any given year. If breeding birds are found, an exclusion zone of 5 meters should be

implemented and maintained until breeding is complete and the fledglings have left the nest.

6.3 ECOLOGICAL ENHANCEMENT

The development allows the opportunity to develop enhancements for wildlife. New hedgerows will be planted along those boundaries of the site which are currently fenced.

Two general purpose Woodstone bird boxes will be installed into nearby mature trees in order to provide nesting opportunities for breeding birds. These should be installed at least 2m from the ground and face away from the prevailing wind.

Two general purpose Woodstone bat boxes will be installed in nearby mature trees to provide roosting opportunities. These should be placed at least 3m from the ground and positioned to face south or south west.

7 SUMMARY AND CONCLUSIONS

Planning permission will be sought for the construction of a new dwelling on land at Park View, Penley. Arbor Vitae carried out a Preliminary Ecological Assessment to evaluate the ecological significance of the site, to assess its value to protected species, to consider the ecological impact of the development and opportunities for habitat mitigation and enhancement.

The site is a small field, once an orchard, adjacent to existing farm buildings and the A495 main road. One mature pear tree remains in an area of improved grassland. The ecological interest of the site is minimal.

A native species hedgerow forms the northern boundary and has some limited value for breeding birds although disturbance from the main road limits this aspect.

The value of the site for badgers, bats and breeding birds is low. The potential value of 5 ponds within 250 metres to great crested newts was considered. Two lie on the far side of a busy main road and two are dry. A fifth pond was not assessed but is far enough away, separated from the site by sub-optimal terrestrial habitat, to result in the risk to GCN being negligible.

No specific mitigation is required although it is advised that RAMMS are adopted to ensure that GCN are not harmed and that a wildlife-friendly lighting plan is adopted to avoid any impact on bats.

No specific mitigation is required although it is advised that RAMMS are adopted to ensure that GCN are not harmed and that a wildlife-friendly lighting plan is adopted to avoid any impact on bats.

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FIGURE 1 LOCATION. 1:50,000

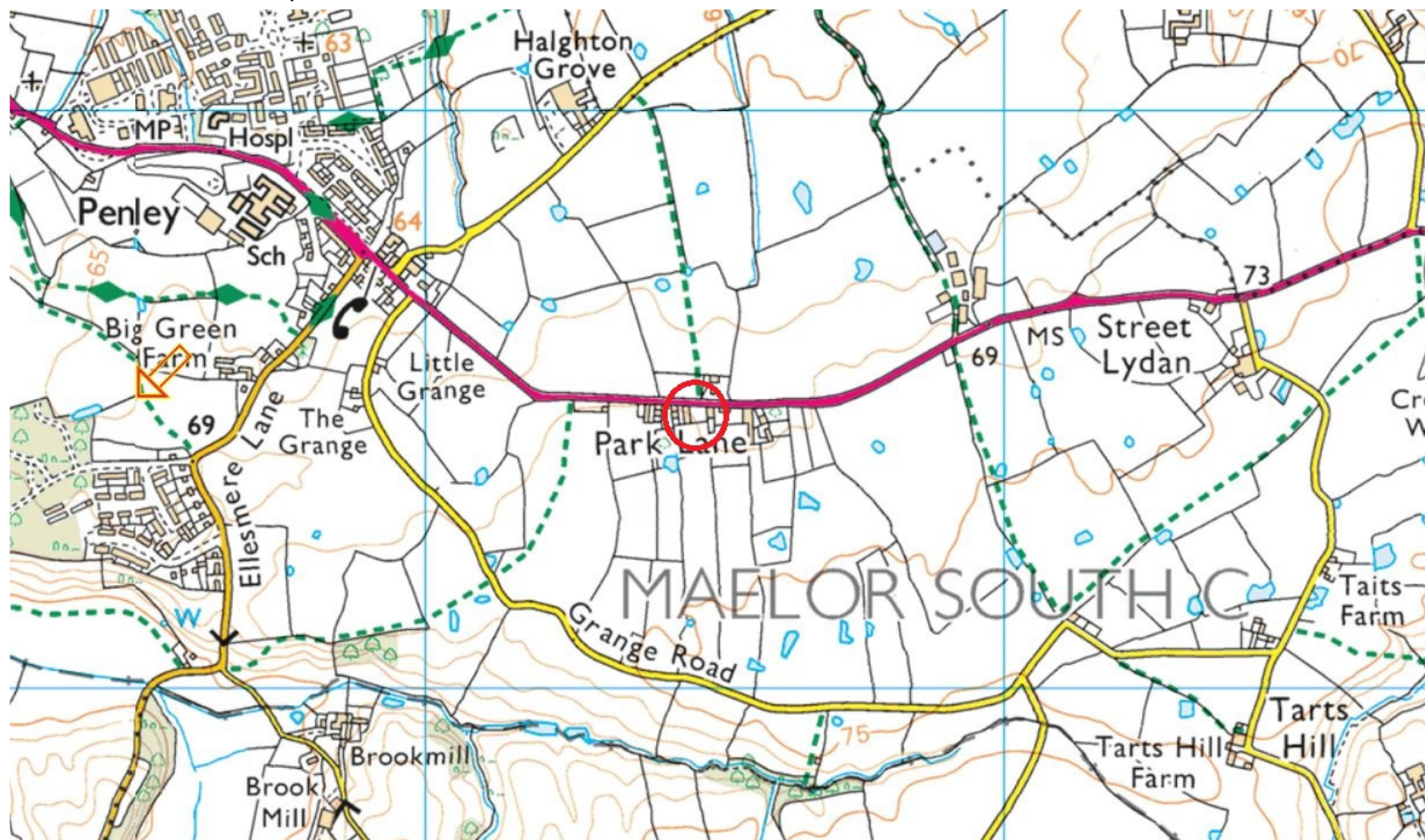


FIGURE 2 AERIAL PHOTOGRAPH



FIGURE 3 LOCATION OF PONDS



APPENDIX 1 PHOTOGRAPHS



OVERALL VIEW OF SITE FROM
WEST



OVERALL VIEW OF SITE FROM
EAST



HEDGE ON NORTHERN
BOUNDARY