

# **ECOLOGICAL APPRAISAL REPORT**

**LAND AT**

**Parc Gwernen,  
Fforest Fach Road, Ammanford, SA18 3PR**

**Survey Date –10<sup>th</sup> March 2018**

**Survey carried out and report produced by**

**Fiona Elphick MSc Env. Biol.,  
Ecological Consultant and Licensed Bat Worker**  
3 Peddles Lane, Charlton Mackrell, Somerton, Somerset, TA11 6AQ.  
Tel: 01458 223763  
Email: [pinguicula42@hotmail.com](mailto:pinguicula42@hotmail.com)

## **SUMMARY**

- Ecological appraisal of land at Parc Gwernen was commissioned to identify any habitats of conservation importance and to determine the extent of current or potential use of the site by any species protected under European or domestic legislation. It is understood that there is extant planning permission for this site which is Phase 5 of a wider residential development.
- The site lies at National Grid Reference SN 616 104
- Survey of the site was conducted by Fiona Elphick on 10<sup>th</sup> March 2018 to determine the current ecological status of the habitats within the site and to identify any constraints on development.
- There are no statutory site designations within 2km of the survey site, nor any records of rare or notable habitats or species from within the site or immediately adjacent.
- The habitats within the site comprise a low diversity of grasses and forbes typical of disturbed ground, surrounded by existing development on two sides and a single line of mature oak trees on the other two sides..
- No habitats or species of note were recorded during the Phase I survey and no evidence of protected species was found within the site.
- Vegetation within the site has only a low potential to support nesting birds. No special precautions are required to protect nesting birds during construction.
- Recommendations are given in the final section of the report for control of lighting and precautionary practices to be implemented during the construction phase.
- Construction of phase 5 of this development can be achieved without risk of negative impacts on local wildlife individuals or populations.

# ECOLOGICAL APPRAISAL OF LAND AT PARC GWERNEN, FFOREST FACH ROAD, AMMANFORD, SA18

## Introduction

- 1.1 An ecological appraisal of land at Parc Gwernen, Fforest Fach Road, Ammanford was commissioned to identify any habitats of conservation importance and to determine the extent of current or potential use of the site by any species protected under European or domestic legislation. It is understood that there is extant planning permission for this site which is Phase 5 of a wider residential development. Phases 1 – 4 have already been completed.
- 1.2 The site lies at NGR SN 616 104, on a low lying but fairly level location a short distance to the south west of the market town of Ammanford, on the eastern edge of the village of Tycroes. The site measures approximately 0.7ha in area, with a perimeter of approximately 325m, comprising a single field, surrounded on two sides to the north east and north west by existing residential development (the earlier phases of the wider development) and on the other two sides to the south east and south west by a line of mature oak trees, beyond which lies farmland consisting of fairly open, grazed pasture divided by tree lines and hedgerows.
- 1.3 Aerial photographs indicate that the habitats within the site are rough grass and scrub surrounded on two sides by mature trees. These habitats may support nesting birds, bats (in tree roosts), reptiles and badgers, therefore the survey sought to identify any suitable habitats for these species either within or immediately adjacent to the site. There are no built structures within the site boundary that could support bat roosts, although some boundary trees may be sufficiently mature to have developed suitable features for roosting. The trees themselves will not be directly affected by the development, however if a likely tree roost is identified, this would need to be taken into account in the external lighting strategy for the site, to prevent negative impacts on local bat populations.
- 1.4 Subsequent to the findings of this survey, any ecological constraints on development can be identified and used to draw up an appropriate Ecological Construction Method for the site, to avoid potential risks to wildlife species, by implementing precautionary processes to protect specific habitats or species.

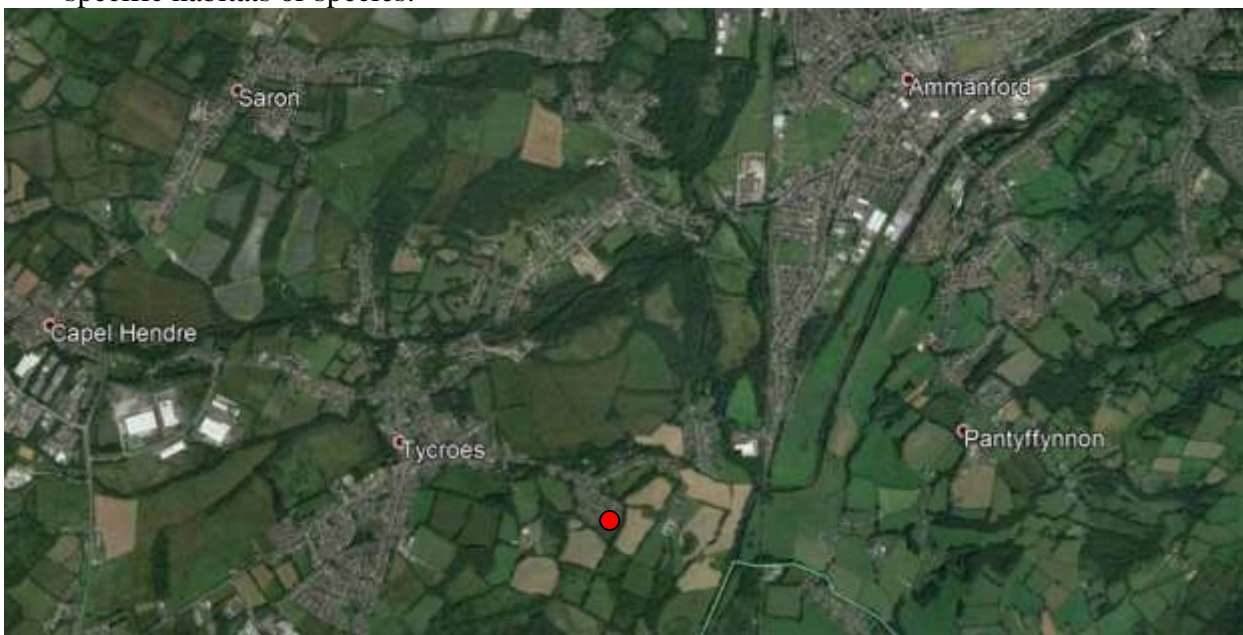


Fig 1. The application site, marked here in red, lies to the south west of Ammanford, on the eastern edge of the village of Tycroes.

## 2.0 Relevant Ecological Legislation

### 2.1 Habitats

2.1.1 Statutory designated sites under either European or UK legislation are protected within the planning process under TAN5. Development that is likely to result in significant adverse impact on the features for which a European site is designated (and therefore detract from the favourable conservation status of the site) must undergo Appropriate Assessment under the Habitats Regulations 2010. This legislation is the British implementation of the EC Habitats Directive 1992. The test of likely significant effect must be informed by sufficient ecological survey of the proposed development site and the habitats and species it supports. Natural Resources Wales (NRW) will be a statutory consultee within the planning process carried out by the Local Planning Authority (LPA).

2.1.2 Where development has potential to result in adverse impact on statutory sites designated under domestic legislation (e.g. Sites of Special Scientific Interest), NRW is again a statutory consultee within the planning process.

2.1.3 Non-statutory sites, e.g. Sites of Interest for Nature Conservation (SINC sites), also known as local wildlife sites, together with areas of habitat that meet the criteria of UK Biodiversity Action Plan Priority Habitat are protected under TAN 5 and also by LPA planning policy.

### 2.2 Protected Species

*This includes only those species where desk studies indicate any potential to support populations on the proposed site. (NB – This is a simplified summary of the legislation that applies to wildlife species. Please refer to the text of the relevant Acts for further detail.)*

#### Bats

2.2.1 All British bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act (as amended by the countryside and rights of Way Act 2000) and are listed in Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 2010. This legislation implements the EC Habitats and Species Directive in the UK. It is an offence to:

- Intentionally or deliberately kill, injure or capture bats
- Deliberately disturb bats (whether in a roost or not)
- Damage, destroy or obstruct access to bat roosts

2.2.2 A licence, issued by Natural Resources Wales, is required for developments that may compromise the protection afforded to European Protected Species. The granting of such a licence will be subject to the submission of suitable mitigation proposals that will prevent damage to protected species and their places of shelter.

#### Badgers

2.2.3 The badger (*Meles meles*) is protected under the Protection of Badgers Act (1992). It is an offence to wilfully kill, injure or ill-treat a badger. Their setts are generally protected against obstruction, destruction or damage in any part and the animals within a sett cannot be disturbed, unless under the terms of a specific licence issued Natural Resources Wales.

2.2.4 The legislation aims to prevent cruelty to badgers, rather than to suggest that the badger is a rare species which requires full protection for scientific or nature conservation reasons. It is

not the stated intention to prevent development of sites where a badger sett is present but to ensure that planners and developers take account of the sett in a responsible way.

### **Reptiles**

2.2.5 All reptiles are protected under the Wildlife and Countryside Act (1981, as amended). The act offers partial protection to common reptiles, as such it is an offence to intentionally kill or injure common lizard (*Lacerta vivipara*), slowworm (*Anguis fragilis*), adder (*Vipera berus*) or grass snake (*Natrix natrix*).

### **Native birds**

2.2.6 The nests of all native British birds are protected under the Wildlife and Countryside Act (1981, as amended). It is an offence to take, damage or destroy the nest of any wild bird whilst that nest is in use or being built or to take or destroy an egg of any wild bird.

## **3.0 Survey Methods**

### **Desk Study of existing information**

- 3.1 O.S. maps and aerial photographs of the site and the immediate surrounding area were reviewed to determine the broad habitat types present, e.g. ponds, woodland, grassland etc. This would give an indication of species that may be supported by those habitats and help focus the survey work in the field.
- 3.2 The websites [www.magic.gov.uk](http://www.magic.gov.uk) and [www.nbnatlas.org](http://www.nbnatlas.org) were consulted for statutory and non-statutory designated sites and for records of species protected under either European or domestic legislation, within 2km of the site.

### **Field Surveys**

#### **Vegetation Survey**

- 3.3 A Phase 1 habitat survey was carried out on 10<sup>th</sup> March 2018, following the standard field methodology set out in the Handbook for Phase 1 habitat survey - A technique for environmental audit, Joint Nature Conservancy Committee 1990 (2003 edition). The site was walked and all the habitat areas recorded in terms of their dominant species. A species list of all vegetation species found within the site was recorded. The habitats within the site were not found to be diverse enough to warrant production of a coloured habitat map, instead, photographic illustrations of the site are supplied in Appendix 1, being a more descriptive representation in this instance.

#### **Protected Species:-**

##### **Bats – Tree Roosts**

- 3.4 Trees are used as roost sites by a range of different bat species. However, the extent to which each species uses trees varies considerably, both seasonally and as a whole. Species with a strong association with trees include the noctule bat (*Nyctalus noctula*), however there are records of all British bat species that are known in Wales using tree roosts, with the exception of Greater Horseshoe bats. It should therefore be assumed that trees with features offering potential roosting sites for bats could be important for any bat species for roosting and as a habitat that naturally hosts large numbers and variety of insects, trees will be important as foraging areas for all bat species.

3.5 Trees can offer suitable roosting sites for bats where one or more of the following features are present:

- Woodpecker holes
- Rot cavities
- Large splits where limbs have fallen
- Areas of loose bark separated from the main trunk
- Dense ivy growth or dense epicormic branching

3.6 However, bats can utilise tiny crevices for roosting that may not be visible from the ground. “Except in the simplest cases, it is extremely difficult to survey trees and be certain that any bat roosts have been detected” (Bat Mitigation Guidelines, English Nature, 2004). Generally only young trees with a simple growth form and little damage can be discounted as potential bat roosts.

3.7 The mature trees adjacent to the south east and south west boundaries were inspected from ground level using binoculars. Any trees considered to have suitable features were recorded as a potential bat roost.

### **Badgers**

3.8 Signs of badger setts or other activity such as latrines, feeding remains and tracks were searched for within the site boundary.

3.9 A sett is defined under the Protection of Badgers Act 1992 as “any structure or place, which displays signs indicating current use, by badger”. During this survey any burrows found were classified as badger setts when their entrances and any visible parts of their tunnels were of an appropriate size and shape. Additional evidence for classification as a sett was also sought including the presence of a spoil heap, badger hair or bedding within the spoil, badger footprints within the spoil and of other associated (probably connected) holes of appropriate size and shape. A sett was defined as a single isolated burrow or a group of burrows that might reasonably be expected to join up underground. Other evidence such as a lack of use by other burrowing animals (namely fox and rabbit) was also taken into consideration.

### **Reptiles**

3.10 Reptiles are cold blooded and rely on the sun’s warmth to raise their body temperature. For this they require relatively secluded basking areas, typically on stones where they can warm up prior to foraging. They also require places to rest where they are safe from predators, often in gaps between stones in walls or beneath tree roots, with a basking area close by. Heavily shaded areas are generally avoided.

3.11 An assessment was made of the suitability of the habitats on site to support populations of common reptiles. This included looking underneath any debris, logs, large stones, piles of garden waste (hedge clippings etc) and other similar places that provide a secluded resting place favoured by reptiles.

### **Breeding birds**

3.13 An assessment was made of different parts of the site for suitable habitat likely to offer potential nesting opportunities for birds. This information allows the timing of works to be planned so that removal of any vegetation likely to be utilised by birds is not disturbed during the nesting season.

## 4.0 Results

### Desk Study Results

4.1 Aerial photographs show the site as an area of grassland surrounded by existing residential development on two sides and mature trees on the other two sides (see Fig 2 below).



Fig. 2. The nominal area of the application site is marked in red. Habitats consists mainly of disturbed ground that supports a low species diversity of grasses and forbes. Boundary features include close boarded fence adjacent to existing residential properties and mature oak trees adjacent to the south east and south west edges of the site.

4.2 A search using the website [www.magic.gov.uk](http://www.magic.gov.uk) found no statutory designated sites within 2km of the application site (see Fig 3 below).

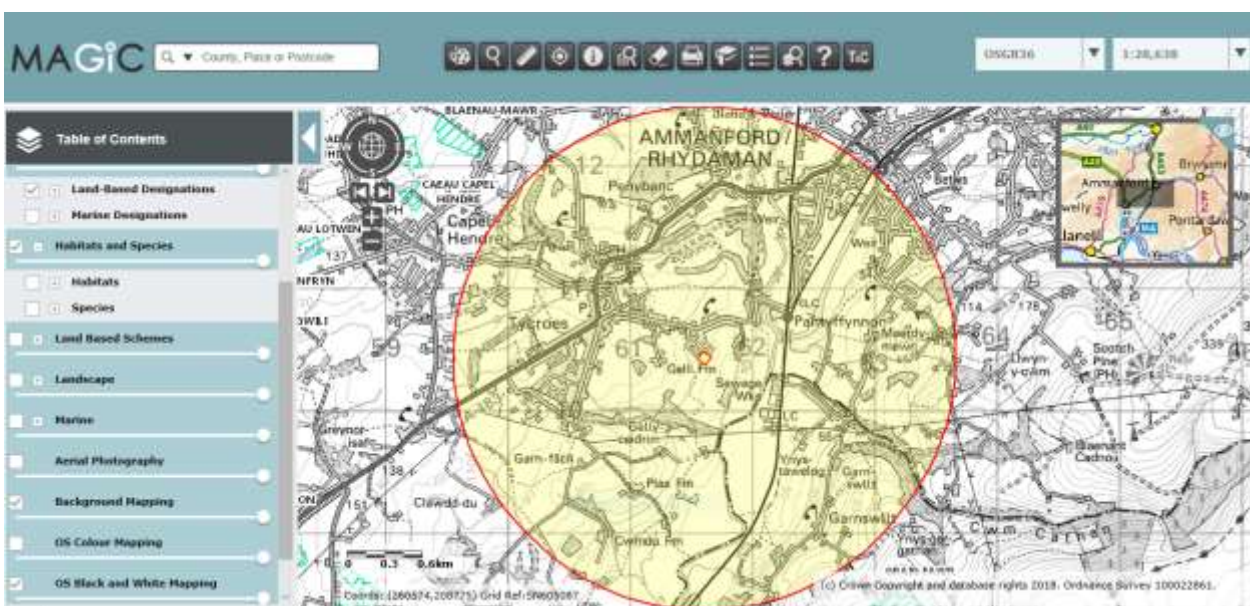


Fig. 3. There are no statutory designated sites within 2km of the site.

- 4.3** A search of data on the NBN Gateway for the SN61 10km grid square did not identify records of rare or threatened faunal or floral species in close proximity to the site. The lack of records is not a true indication of absence, rather that surveys have not been conducted. There is reasonably good connectivity between the site and adjacent habitats more likely to support species or habitats of conservation concern, although the existing residential development may be something of a deterrent to any great variety of wildlife using the site. Rarer species are far less likely to be found in close proximity to residential housing, often due to the presence of predatory pets such as domestic cats and even dogs.

## Field Survey Results

### Phase I Habitat Survey

- 4.4** The main habitats within the site comprise a central area of previously disturbed ground supporting a low species diversity of grasses and forbes, together with areas of dense bramble to a height of around 60cm, and stands of self-seeded tree saplings. A line of mature oaks runs along the south eastern and south western edges of the site but these are outside the site ownership and will not be directly affected by the development.
- 4.5** Species within the central grassland and scrub area include: Yorkshire fog (*Holcus lanata*), creeping bent (*Agrostis stolonifera*), field buttercup (*Ranunculus acris*), very occasional broad leafed dock (*Rumex obtusifolius*), ribwort plantain (*Plantago lanceolata*), common daisy (*Bellis perenis*), Selfheal (*Prunella vulgaris*), Willowherb sp. (*Epilobium sp*), pendulous sedge (*Carex pendula*) in the wetter areas, along with smooth rush (*Juncus effusus*) and common rush (*Juncus conglomeratus*), very occasional individuals of bracken (*Pteridium aquilinum*), cleavers (*Galium aparine*) and chickweed (*Stellaria media*). There are also extensive patches of bare ground, standing water in ruts left by earth moving machinery and some large stones, heaps of stones and earth mounds.
- 4.6** Patches of bramble (*Rubus fruticosus*) are dense and no more than around 60cm in height. They are also mainly choked with grasses growing up through them and lots of waste paper and other litter that has blown across the site.
- 4.7** All tree species across the centre of the site are immature saplings and appear to be self-seeded. They include ash, hazel, birch, willow and oak.
- 4.8** The site is also littered with garden and domestic waste.
- 4.9** Drainage ditches have been cut around the south eastern and south western edges to drain water from the site. Additional grips have been dug from within the site, out to the ditches at the edge. At the time of the survey the ditches held running water as the surrounding land drained after recent snow and rain. The ditches themselves are devoid of vegetation and do not offer any function for wildlife. It is assumed that these will be filled in or will be made part of the surface water drainage strategy for the site. None are marked as watercourses on the OS maps.
- 4.10** Throughout the site, no rare or endangered plant species were found. The vegetation assemblage is typical of wet ground that has been disturbed in the recent past and as a result of the disturbance, the diversity is relatively low.



## **Protected Species**

- 4.11 Bats** – The mature oak trees adjacent to the south eastern and south western boundaries of the site have no obvious suitable features for bat roosting, although all these trees exhibit some epicormic growth, areas of rough bark and there may be splits in larger limbs. Since all are outside of the development site the boundary trees will not be directly affected by the development. Since they form linear features that contribute to primary connective habitat, it is likely that they will be used by bats for foraging and commuting. It is therefore advisable that lighting within the site is controlled so that lux levels around the tree lines are not increased, as this could create a barrier to bat movement. If it is necessary to trim any tree limbs on the more mature specimens, it is recommended that this should be undertaken by a climbing arborist with bat experience.
- 4.12 Badgers** – No evidence of badgers was found within the site.
- 4.13 Reptiles** – The site has low suitability for reptiles, due to lack of natural refugia and basking areas. No further surveys for reptiles are required.
- 4.14 Breeding Birds** – The vegetation within the central part of the site does not offer suitable bird nesting habitat. The self-seeded trees are not yet mature enough to support nests, since they would not remain stable in windy conditions, nor have they developed sufficient branching of limbs to provide any cover or seclusion for nesting birds. The stands of dense bramble are also unsuitable as they are relatively low growing at present and do not offer sufficient seclusion from predators. Evidence of cats and dogs crossing the site was observed during the survey. I would suggest that there are better nesting opportunities nearby in hedgerows or the external features of buildings. Birds observed within the site were a group of three sparrows, a single robin, two coal tits, a single seagull and a single crow (both flying over). The low numbers, observed in sunny weather, near the start of the nesting season, indicate that the central part of the site has limited function for birds. The mature trees adjacent to two sides of the site are likely to be used for nesting, especially in hollows and crevices where there is greater seclusion. However, since the trees will not be directly affected by the development, this function will remain.

## **5.0 Conclusions**

- 5.1** The vegetation within the site contains no plant species or communities of note or of significant conservation value.
- 5.2** No evidence of any protected species was found within the site. Only the trees bordering the edges of the site are sufficiently mature to have developed bat roosting opportunities although all will be retained and will not be directly affected by the development. Trees on the boundary are likely to contribute to foraging and commuting lines used by bats, birds and small mammals moving between different habitat areas. The site does not offer suitable features to support reptiles and no evidence of badger presence was found within the site.
- 5.3** The indicative site layout places houses away from the tree lines, so that there should be no impact on tree roots as a result of the development. This will also allow for external lighting to be directed away from the trees, allowing them to retain their function as connective habitat for a range of birds, bats and other small mammals.

- 5.4** The ditches around the edges of the site are all man made and recently dug, in order to drain the site following a severe period of snow and rain. They are not permanent watercourses and are not marked as ditches or watercourses on OS maps. Since they are devoid of vegetation they have little or no function for wildlife, therefore no special precautionary measures are required to either backfill them or to incorporate as part of the surface water drainage scheme for the site. No mitigation is required for the loss of these drainage ditches if they are to be backfilled.
- 5.5** Standard precautionary measures as given below will be sufficient to protect wildlife within the site, during the construction period.
- 5.6** I conclude that if the recommendations below are followed, construction will not result in significant adverse impact to local wildlife populations. No further ecological survey is required in relation to the construction of this latest phase of the development.

## **6.0 Recommendations**

- 6.1 Trees adjacent to Boundaries** - During construction (particularly excavation of utilities and foundations) it is recommended that all trees and their roots are protected in accordance with BS 5837:2012: Trees in relation to construction.
- 6.2 Lighting** for the site should not be allowed to spill onto the existing boundary trees, to prevent adverse impacts on foraging and commuting routes for wildlife. As a general guide, a light level of 1 lux or less should be maintained at the edge of all tree lines.
- 6.3 Vegetation clearance** should, if possible, commence from the north western corner of the site and move towards the south eastern corner. This is in order to allow birds and small mammals to leave the site and escape into adjacent farmland.
- 6.4 Excavated trenches** should be left open for as short a time as possible. If open overnight, a plank of wood should be placed in each end leading to the top of the trench, to avoid small mammals getting trapped within the trench.

## Appendix 1 - Photographs of the site



Plate 1. Looking across the site towards the southernmost corner. The conifer branches to the middle-left are garden waste dumped on the site.



Plate 2. Looking across the site towards the south eastern tree line.



Plate 3. The self-seeded trees in the central part of the site are not yet sufficiently mature to support nesting birds or roosting bats. The blue plastic is dumped domestic waste..



Plate 4. The ditch with has been dug along the south western edge to drain the site. This is a man-made ditch, devoid of vegetation and does not support any wildlife species at present..



Plate 5. An earth bank which is present as a result of previous earth moving within the site, probably in relation to construction of the first four phases of the development. The line of mature oak trees to the rear is the south eastern tree line.



Plate 6. Looking across the site from the western corner. Note that there is a significant amount of bare earth and standing water within the central part of the site.



Plate 7. Self-seeded willow and birch in the central part of the site.



Plate 8. Looking along the north eastern edge of the site. Note several heaps of garden waste..



Plate 9. The ditch that has been dug along the south eastern edge of the site. The ditch itself is man-made, is devoid of vegetation within the ditch itself and does not provide any function for wildlife at present..