Extended Phase One Survey
Greenyard Farm
Argae Lane
St Andrews Major
Vale Of Glamorgan
CF63 1BL
February 2016
ON THE INSTRUCTION
OF
Andrew Edmunds

Reported by Vicky Hannaford
On behalf of
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Extended Phase 1 Habitat Survey – Greenyard Farm, Barry

1. Introduction

The applicant is seeking planning permission to convert a wooden clad barn and a stone barn into dwellings. A metal Dutch barn within the proposed redevelopment site will be demolished. The buildings are situated around the original farmyard belonging to Greenyard Farm, Barry (ST 13740 70540).

2. Site Description

The proposed development site lies adjacent to Argae Lane, off the A4231 Barry Docks Link Road, Barry in the Vale of Glamorgan County Borough. The site measures approximately 0.5 ha in size and rectangular in shape following a rough north, south axis.

The site is a level farmyard, including an L-shaped wooden barn, a large metal Dutch barn, which is to be demolished and a stone barn which lies adjacent to the farmhouse. The perimeter of the site is made up of mature trees.

The site is surrounded to the north, south and east by Saint Andrews Major Golf Club and Driving Range and across Argae Lane, to the west of the site, are fields and hedgerows.

3. Survey Constraints

Full access of the site was obtained to complete all aspects of the ecological survey. The survey was carried at the end of July which is an optimal time of the year for detailed botanical surveys. Access to the adjacent Golf Club was prohibitive on health and safety grounds.

4. Surveyor Experience

Vicky Hannaford completed the phase 1 survey of the site. Vicky is an ecologist with at least three years experience. She has worked in larger consultancies previously completing numerous botanical surveyors with ecologists, completed professional training courses and attended informal botanical meetings to gain valuable knowledge. This experience allows Vicky to assess and identify common habitats as per the JNCC Phase 1 Survey Guidelines.

5. Survey Results

5.1 Desktop Study

A SEWBReC data search was undertaken for the proposed development site and surrounding area. A 1 km buffer zone was searched. There were no records returned within 500 m of the site.

Records of note returned for the rest of the buffer zone are detailed below:

- Slow worm
- Eurasian badger (road kill)
- Records returned for the presence of the following birds: - song thrush, common starling, lesser spotted woodpecker, wood warbler., common bullfinch, barn owl, coal tit, green woodpecker, goldcrest, mistle thrush and house martin

Due to their feeding and breeding habits records within 2 km of the site were returned for:

- Great crested newt – approximately 1300 m away
- Male Pipistrelle bat roost in Dinas Powys – approximately 1100 m away

5.2 Protected Sites

The SEWBReC data search for the proposed development also considered statutory and non-statutory protected sites.

There is one statutory protected site within 1 km of the proposed development site, Barry Woodlands, a Site of Special Scientific Interest (SSSI). Barry Woodlands lies to the north west of the proposed development site and is situated along the 1 km boundary

Coed Twyncyn SINC lies to the north east of the proposed development site and is also situated along the 1 km boundary.

There are no other protected sites within 1 km of the proposed development site.

5.3 Habitat

The survey was undertaken on 30th July during good weather.

The site is a level farmyard, rectangular in shape and lies adjacent to Greenyard Farmhouse Along the western edge of the site is an L-shaped wooden clad barn and a metal dutch barn. The east side of the site is a stone barn which lies adjacent to the farmhouse. The barns encompass the farmyard which is dominantly hard standing.

The northern edge of the site is a mixture of scrub, dominated by bramble (*Rubus fruticosus)* and tall ruderal habitat with great willowherb (*Epilobium hirsutum*) and nettle (*Urtica dioica*) in abundance. There is a small patch of ruderal habitat at the eastern edge of the site next to the entrance gate and also within the orchard to the south of the site.

There is evidence of rubble/rubbish along the boundary to the north.

The orchard to the south of the site consists of apple (*Malus* sp.) and plum trees (*Prunus* sp) trees, within the orchard the occasional shoot of Japanese knotweed (*Fallopia japonica*) was noted.

The boundary on the south western edge of the site is a species poor hedgerow consisting of hazel (*Corylus avellana*) and hawthorn (*Crataegus monogyna*).

The boundary to the north and east of the site consists of mature trees including elm (*Ulmus* sp.) ash (*Fraxinus excelsior*), which are to be left in situ.

Habitat surrounding the proposed development site to the north, east and south is dominated by amenity grassland, habitat to the west of the site is mainly farmland.

There is an orchard to the south of the site which consists of apple (*Malus* sp.) and plum trees (*Prunus* sp) trees. Within the orchard the occasional shoot of Japanese knotweed (*Fallopia japonica*) was noted. However, this is outside of the proposed site boundary and is noted purely for information.

4. Otters

The common otter (*Lutra lutra)* is a European protected species and is protected under the Conservation of Habitats and Species Regulation 2010. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

The site is assessed as having low potential for the presence of otters. No records for the presence of otters were returned within 1 km of the site. Cold Brook, which flows into Cadoxton River, lies on the southern border of St Andrews Golf Club and Driving Range, due to disturbance by golfers it is unlikely a holt or resting place is used by otters in close proximity to the development site.

5.5 Bats

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulation 2010. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Deliberate taking or destroying of eggs,
- Damage or destruction of a breeding site or resting place.

The Wildlife and Countryside Act (1981) as amended also protects all species of British bat and their roosting locations.

Tree Category and description	**Stage 1 Initial Survey Requirements**	**Stage 2 Further measures to inform proposed mitigation**	**Stage 3 Likely mitigation**
Known or confirmed roost	Follow SNCO guidance and these guidelines wherever possible, to establish the extent to which bats use the site. This is particularly important for roosts of high risk species and/or roosts of district or higher importance and above.		The tree can be felled only under EPS licence following the installation of equivalent habitats as a replacement.
Category 1* Trees with multiple, highly suitable features capable of supporting larger roosts	Trees identified on a map and on the ground. Further assessment to provide a best expert judgement on the likely use of the roost, numbers and a species of bat, by analysis of droppings and other field evidence ***A consultant is ecologist required***	Avoid disturbance to trees where possible. Further dusk and pre-dawn survey to establish more accurately the presence, species, numbers of bats present and the type of roost, and to inform the requirements of mitigation if felling is required.	Felling would be undertaken taking reasonable avoidance measures such as a soft felling to minimise the risk of harm to individual bats.
Category 1 Trees with definite bat potential, supporting fewer suitable features than category 1* trees or with potential for use by single bats	Tree identified on a map and on the ground. Further assessed to provide a best expert judgement on the potential use of suitable cavities, based on the habitat preferences of bats ***A consultant ecologist required***.	Avoid disturbance to trees where possible. More detailed, off the ground visual assessment. Further dusk and pre-dawn survey to establish the presence of bats and if present, the species and numbers of bats present and the type of roost, and to inform the requirements for mitigation if felling is required.	Trees with confirmed roosts following further survey are upgraded to category 1* and felled under licence as above. Trees with no confirmed roosts may be down graded to category 2 dependent on survey findings.

Category 2 Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks being found; or the tree supports some features which may have limited potential to support bats.	None ***A consultant ecologist is unlikely to be required.***	Avoid disturbance to trees where possible. No further surveys.	Trees may be felled taking reasonable avoidance measures. Stop works and seek advice in the event that bats are found, in order to comply with the relevant legislation
Category 3 Trees with no potential to support bats.	None. ***A consultant ecologist is not required unless new evidence is found***.	None.	No mitigation for bats is required.

Table 1. Protocol for visual inspection of trees due to be affected by aboricultural work (BCT Good Practice Guidelines 2012)

A separate report will be submitted for bat surveys conducted on the affected buildings within the proposed development site.

No trees were surveyed for their potential as bat roosts as it is understood that no trees are to be felled. If however, any trees are expected to be felled during the proposed development then these trees must be assessed prior to any works beginning.

5.6 Dormouse

The dormouse (*Muscardinus avellanarius)* is a European protected species and is protected under the Conservation of Habitats and Species Regulation 2010. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

The site is assessed as having low potential for the presence of dormice. No records for the presence of dormice were returned within 1 km of the site. The proposed development site itself consists of mainly hard standing and buildings which are assessed as being sub optimal for dormouse. Land adjacent to the site is now a golf course and driving range and the land is likely to have previously suffered a large amount of disturbance when it was built. This has removed the majority of natural habitat and links to wider surrounding habitat suitable for dormice. Given the lack of dormouse records and the unsuitability of the proposed development site for such species, it is thought highly unlikely dormice will be impacted on by the proposed works.

5.7 Great Crested Newts

Great crested newts (*Triturus cristatus)* are a European protected species and are protected under the Conservation of Habitats and Species Regulation 2010. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Deliberate taking or destroying of eggs,
- Damage or destruction of a breeding site or resting place.

The SEWBReC data search returned records for the presence of great crested newts within 2 km to the south of the site.

The closest record for the presence of great crested newts is approximately 1.3km away from site. There are three water bodies situated within 500 m to the south of the proposed development, approximately 300m to the south of site. The water bodies are situated within the St Andrews Golf Club and Driving Range and are surrounded by amenity grassland with scant connectivity to the proposed development site. Due to this lack of connectivity, large areas of amenity grassland and disturbance by humans it is unlikely newts would utilise the site as a resting place. Given the lack of close records and unsuitability of the proposed development site, the site is assessed as having negligible potential for great crested newts.

5.8 Badgers

Badgers are protected under the Protection of Badgers Act 1992. In summary they are protected from:

- Taking, killing or injuring;
- Cruelty;
- Interfering with a badger sett;
- The selling and possession of badgers;
- Marking or ringing.

Badgers are also listed on schedule 6 of the Wildlife and Countryside Act 1981 as amended.

Badgers tend to have a variety of setts with different uses and functions within the territory for the family unit. In general there is usually a main sett which the family will use the most. There are then annex, subsidiary and or outlier setts which depending on family structures and environmental pressures may be used at different times of the year. As female badgers

tend to have their cubs over winter the disturbance and damage of badger setts is prohibited between December and June inclusive. NRW are the licensing body for any actions which may contravene the above legislation.

The site is assessed as having negligible potential for the presence of badgers due to the lack of suitable habitat. The site consists mainly of hard standing and buildings. One record of badger (road kill) was returned within 1 km of the site indicating the wider landscape is suitable for such species.

5.9 Birds

All breeding birds are protected under schedule 1 of the Wildlife and Countryside Act (1981) as amended.

No birds' nests were directly noted, however birds were seen flying into the wood clad barn during the survey. Appropriate steps and mitigation for nesting birds will be undertaken as part of the development.

5.10 Reptiles and Amphibians

Reptile such as the slow worm, common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981(as amended). They are protected from killing, injuring and sale. They are also listed in section 42 of the Natural Environment and Rural Communities Act (NERC) 2006. Our common native amphibians are only protected from sale.

The SEWBReC data search returned one record for slow worm approximately 700 m from the proposed site.

Several piles of rubble/rubbish were noticed at the northern edge of the site which could provide suitable hibernacular for small numbers of reptiles. Overall the proposed development site has low potential for reptiles to be present consisting mainly of hard standing and buildings which do not offer cover or foraging habitat. However the surrounding habitats adjacent to the site could support such species. Given the presence of rubble piles within the proposed development site boundary, animals from adjacent habitats may use the rubble for hibernation purposes.

6. Recommendations and Mitigation

It is proposed to convert the stone barn and wooden clad barn into dwellings, either for resale or as holiday lets and demolish the metal Dutch barns. This is a small scale redevelopment with minimal ecological impact due to the majority of the site being hard standing.

Recommendations for potential ecological impacts are made below:

- Clearance of rubble/rubbish within the site must be done outside of the hibernation period i.e. cleared between March and October.
- Demolition/redevelopment of barns should be take place between September and February to avoid the bird breeding season. If this is not possible, before any work commences a suitably qualified ecologist should check the buildings for the presence of bird nests.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on competent authorities such as the Vale of Glamorgan County Council to conserve and enhance biodiversity. The below bullet points are some simple measures that could be achieved to enhance the biodiversity of the site:

- The provision of two bird boxes of varying design within the development. These could include sparrow terrace boxes on new houses or small and large holed boxes on the mature trees retained as part of the work .

Appendix 1 – Species list

Hedgerow

Common Name	Latin Name
Hazel	*Corylus avellana*
Hawthorn	*Crataegus monogyna*
Nettle	*Urtica dioica*
Broad leaved Dock	*Rumex obtusifolius*
Hedge bedstraw	*Gallium mollugo*
Hemp agrimony	*Eupatorium cannabinum*
Bristly oxtongue	*Picris echioides*
Black medic	*Medicago lupulina*
Spear thistle	*Cirsium vulgare*
Broad leaved plantain	*Plantago major*
Bramble	*Rubus fruticosus* agg.

Orchard

Common Name	Latin Name
Apple	*Malus sp.*
Plum	*Prunus sp.*
Japanese knotweed	*Fallopia japonica*

Tall Ruderal

Common Name	Scientific Name
Nettle	*Urtica dioica*
Burdock	*Arctium sp.*
Hedge bindweed	*Calystegia sepium*
Greater willowherb	*Epilobium hirsutum*
Hogweed	*Heracleum sphondylium*
Ragwort	*Senecio jacobaea*

Bittersweet	*Solanum dulcamara*
Spear thistle	*Cirsium vulgare*
Teasel	*Dipsacus fullonum*
Herb Robert	*Geranium robertanium*
Ivy	*Hedera helix*
Ash (saplings)	*Fraxinus excelsior*
Willow sp.	*Salix sp.*
White clover	*Trifolium repens*
Bramble	*Rubus fruticosus* agg.
Bristly oxtongue	*Picris echioides*
Broad leaved plantain	*Plantago major*
Cow parsley	*Anthriscus sylvestris*
False oat grass	*Arrhenatherum elatius*
Dovesfoot cranesbill	*Geranium molle*
Fescue	*Festuca sp.*
Yorkshire fog	*Holcus lanatus*
Cocksfoot	*Dactylis glomerata*
Prickly oxtongue	*Picris echioides*
Sow thistle	*Sonchus asper*
Groundsel	*Senecio vulgaris*
Ground ivy	*Glechoma hederacea*
Tansy	*Tanacetum vulgare*
Ribbed melilot	*Melilotus officinalis*
Elm	*Ulmus sp.*
Daisy	*Bellis perennis*
Broad leaved dock	*Rumex obtusifolius*
Dandelion	*Taraxacum officinale*
Hedge woundwort	*Stachys sylvatica*
Pineappleweed	*Matricaria discoidea*
Cleavers	*Gallium aparine*

Elder	*Sambucas nigra*
Buttercup	*Ranunculus sp.*
Creeping thistle	*Cirsium arvense*
Selfheal	*Prunella vulgaris*
Common bistort	*Persicaria bistorta*
White clover	*Trifolium repens*
Smooth meadow grass	*Poa annua*
Upright hedge parsley	*Torilis japonica*
Speedwell	*Germander sp.*
Field bindweed	*Convolvulus arvensis*

Boundary Trees

Common Name	**Scientific Name**
Hawthorn	*Crataegeus monogyna*
Ash	*Fraxinus excelsior*
Hawthorn	*Crataegus monogyna*
Butterfly bush	*Buddleja davidii*
Leyland cypress	*Cupressus x leylandii*

Appendix 2 – Site Photographs

Figure 1 Wood clad barn

Figure 2 Stone barn

Figure 3 Tall ruderal habitat behind Dutch barn

Figure 4 Rubble pile on northern edge of site

Appendix 3 – Sketch plan of site