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PRELIMINARY ECOLOGICAL APPRAISAL OF BARN AND ASSOCIATED LAND AT UPPER OTTERPOOL FARM SELLINDGE TN25 6DD
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1. INTRODUCTION

This report contains the results of a Preliminary Ecological Appraisal of dwelling and associated land at Upper Otterpool Farm, Sellindge, Kent TN25 6DD.

The Preliminary Ecological Appraisal was carried out by Sean McMinn from Marsh Environmental on the 23rd March 2022, a suitably qualified ecologist who is licensed by Natural England for the following, protected species:

- Birds (including barn owls)
- Bats
- Great Crested Newts

2. SITE DESCRIPTION

Upper Otterpool is located between Hythe and Sellindge on the south side of the A20 and set in a rural landscape of farmland with a mix of arable, pasture, woodland and hedgerow.

The site survey area consists of the existing converted barn, main house, gardens , grassland (amenity & neutral) ornamental dry pond, scattered mixed trees and woodland, Hazel *Corylus avellana,* Larch *Larix decidua,* Birch *Betula pendula,* Horse chestnut *Aesculus hippocastanum,* Oak *Quercus robur,* Holly *Ilex aquifolium and* Hawthorn *Crataegus monogyna.* There are also hedgerows of beech *Fagus sylvatica,* Hornbeam *Carpinus betulas,* Hawthorn *Crataegus monogyna* and Holm oak *Quercus ilex.*

The survey area is approximately 1.25ha and located at grid reference: TR 11293 36244

FIGURE 1: UPPER OTTERPOOL LOCATION AND SURVEY AREA



3. METHODOLOGY

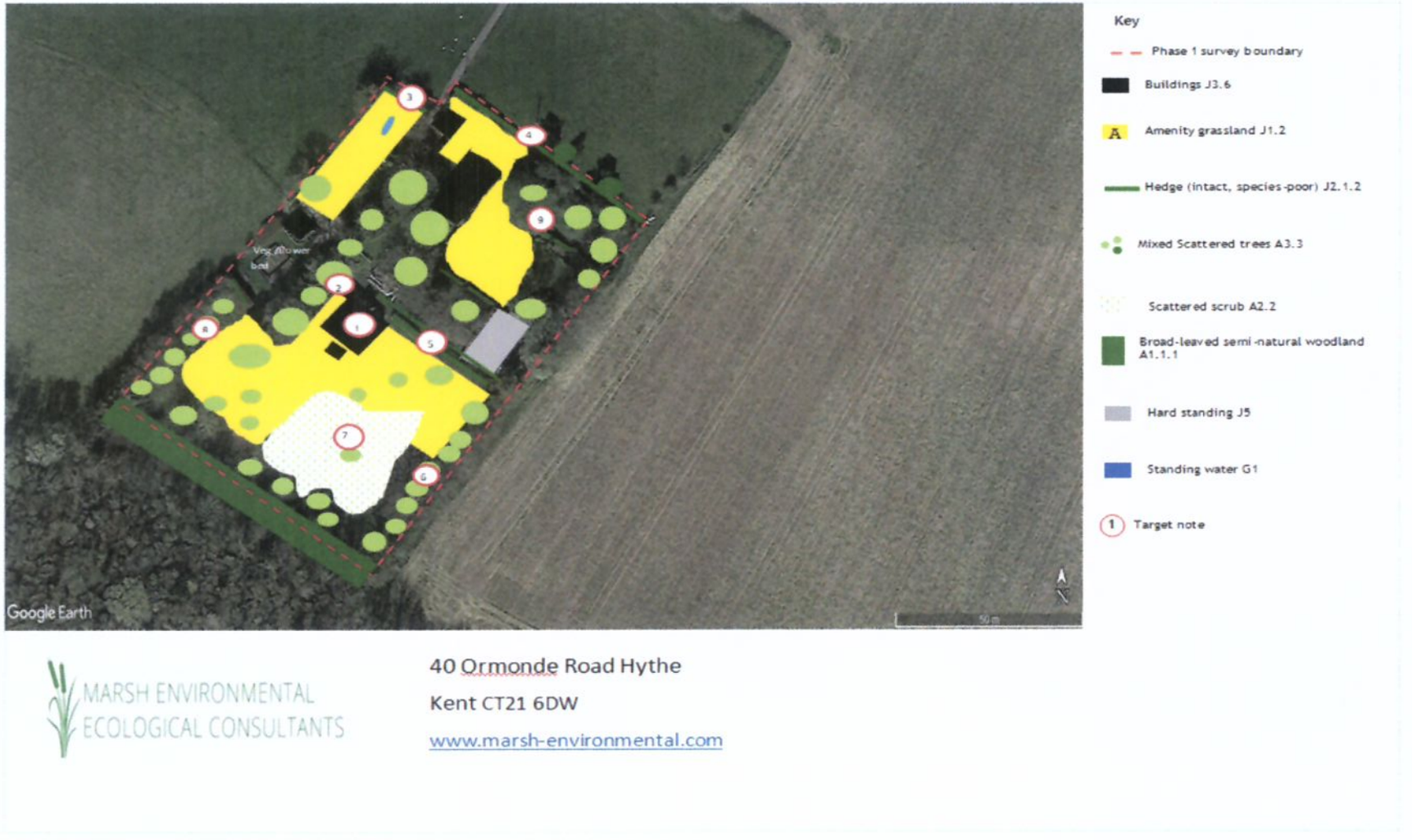
Site Survey

A Preliminary Ecological Appraisal (PEA) of land and building at Upper Otterpool Sellindge, Kent TN25 6DD was undertaken on the 23rd March 2022. The survey area concentrated on the areas of land and buildings as defined in red on figure 1&2.

The ecological survey is based on the Handbook for Phase 1 habitat survey - A technique for environmental audit, (JNCC 2010), and standard best practice as recommended by the Chartered Institute for Ecology and Environmental Management in their Guidelines For Preliminary Ecological Appraisal (CIEEM 2017).

All habitats are described as standard Phase 1 classification (Joint Nature Conservation Committee, 2010, Handbook for Phase 1 Habitat Survey). A basic habitat plan illustrates the results in figure 2.

FIGURE 2: PHASE 1 SURVEY HABITAT MAP



4. RESULTS – WHAT WE FOUND

Objectives

The objectives of this commission were to:

1. **Conduct a baseline ecological survey and appraisal of the above site and identify notable factors/features;**
2. **prepare a 'Phase 1' Habitat Map with Target Notes to recognised standards;**
3. **produce a written summary of results;**
4. **provide appropriate recommendations for mitigation, biodiversity protection/ enhancement, *etc.***

Limitations

It should be noted that, whilst the investigation of the site was appropriately intensive within the intended framework of the commission, and we feel it is unlikely that significant matters have been overlooked, a single visit will inevitably miss species not apparent on the date of survey by reason of seasonality, mobility, habits or chance.

ITEM	OBSERVATIONS
Habitats & vegetation (*NB.* Please be aware that several designated habitat types and many plants enjoy legal protection in Britain.)	
General description	Upper Otterpool is located between Hythe and Sellindge on the south side of the A20 and set in a rural landscape of farmland with a mix of arable, pasture, woodland and hedgerow. The site survey area consists of the existing converted barn, main house, gardens , grassland (amenity & neutral) ornamental dry pond, scattered mixed trees and woodland, Hazel *Corylus avellana,* Larch *Larix decidua,* Birch *Betula pendula,* Horse chestnut *Aesculus hippocastanum,* Oak *Quercus robur,* Holly *Ilex aquifolium and* Hawthorn *Crataegus monogyna.* There are also hedgerows of beech *Fagus sylvatica,* Hornbeam *Carpinus betulas,* Hawthorn *Crataegus monogyna* and Holm oak *Quercus ilex.* The survey area is approximately 1.25ha and located at grid reference: TR 11293 36244.
Target Note (TN) 1 (for location of TNs please see plan above	Building subject to development with potential for roosting bats
TN 2	Oak tree adjacent to existing barn conversion with potential to support roosting bats having holes in the trunk and limbs
TN 3-9	Hedgerows, scrub & trees that have nesting bird potential. All of the more mature trees across the site have nesting bird potential.

ITEM	OBSERVATIONS
Statutory designations (on/near)	Information from MAGIC (Multi-Agency Geographic Information for the Countryside) Information on this site from MAGIC (www.magic.gov.uk) is as follows: The nearest Sites of Special Scientific Interest (SSSI) is Otterpool Quarry SSSI (noted for it's geological interest) that abuts the access track and grounds, there is also Lympne Escarpment SSSI 1.4km west of Upper Otterpool.
Non-statutory designations (on/near)	Information from MAGIC (Multi-Agency Geographic Information for the Countryside) Information on this site from MAGIC (www.magic.gov.uk) is as follows: There is a broad-leaved deciduous Woodland located at the west boundary of the site that is listed as a Priority Habitat.
Notable hedgerows, woodland or scrub	The woodland to the west of the proposed development is notable in the context that it is listed as a Priority Habitat. The hedgerows present on site, although not notable they do provide nesting bird habitat. The woodland will not be directly affected by the development proposals.
Ecologically notable trees (e.g. veteran, wildlife significant)[1]	There are several mature oaks across the site, some of which have holes, cracked/broken limbs etc. that provide nesting bird habitat and potential roosting opportunities for bats.
Ponds/water courses	There is an ornamental pond on site that is lined. At the time of the site visit it was dry although there were a number of aquatic plants still present within the pond area.
Notable communities	None observed on site.
Notable vascular plants	None observed on site.
Notable bryophytes	None present on site.
Notable lichens	None present on site.

[1] Please note that we do not check TPO status as this is a landscape/amenity planning classification.

ITEM	OBSERVATIONS
Notable fungi	None present on site.
Other notable habitats/vegetation	None.
Mammals (*NB.* Several species and their habitats have very strict protection in British/European law.)	
Badger	There were signs of badger activity (latrines) outside the given curtilage to the east.
Otter	None observed: No suitable habitat exists.
Other mustelids	None observed.
Bats	The barn is vaulted and has no separate roof void. The roof covering is peg tiled with timber clad walls that provide potential roosting opportunities for crevice dwelling bats. There is a mature oak immediately north of the barn that has holes in the trunk and limbs that provides potential roosting opportunities for bats. The surrounding area has good foraging habitat for bats, with woodland and farmland.
Water vole	None present no suitable habitat on site.
Common or hazel dormouse	Unlikely within the grounds/gardens. The woodland does provide some potential habitat however it is isolated with no scrub ground storey layer and no connectivity to other areas.
Deer	None. but may occur in surrounding habitats.
Hedgehog	None present but considered likely as suitable habitat is present.
Shrews	None present, however likely as suitable habitat is present.
Others	Other mammals such as fox, rats and mice may use the site for foraging/breeding as suitable habitat exists.
Birds (*NB.* With the exception of eleven derogated pest or very common species, the Wildlife and Countryside Act (1981 and amendments) gives protection to all wild birds in Britain from killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs. Many species are also protected by European and international statutes.[2])	
Schedule 1	No evidence of barn owls and no other Schedule 1 species on site.

[2] Please also see http://www.rspb.org.uk/wildlife/birdguide/status_explained.aspx and http://www.bto.org/sites/default/files/u38/downloads/home-news/2011-11/SUKB%202011%20final.pdf for red and amber lists *etc.*, and explanations.

ITEM	OBSERVATIONS
Red list	None recorded during the survey.
Active nests	No active nests found.
Other	Woodpigeon, blackbird, goldfinch, chaffinch, blue tit, great tit and wren seen in the garden area. There are likely to be a greater range of bird species in the general area.
Herpetofauna (*NB.* The grass snake, slow-worm, viviparous (common) lizard and adder (viper) are all protected from intentional killing and injury under Schedule 5, Section 9(1), of the Wildlife and Countryside Act as amended/reinforced by the CROW Act 2000. They are also protected under Schedule 5, Section 9(5) which prohibits selling, offering for sale, possessing or transporting for the purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from the species. Other species and their habitats have stricter protection at national and European levels.)	
Adder	None. considered unlikely in this area.
Grass snake	None observed. May occur in the rough grassland areas at the woodland interface. The gardens front and rear are maintained as lawn and therefore unsuitable for reptiles in general.
Slow-worm	May occur in the rough grassland areas at the woodland interface. The gardens front and rear are maintained as lawn and therefore unsuitable for reptiles in general.
Common lizard	None observed however may occur as suitable habitat exists around the buildings, rough grassland and general refugia on site.
Rarer reptiles	None (not found in this area).
Great crested newt	The pond is lined and does not appear water tight and may be permanently dry therefore unlikely to support great crested newts. There are few ponds within the local area and much of the surrounding terrestrial habitat is considered poor quality for this species reducing the probability of this species occurring significantly.
Natterjack toad	No (not found in this area).
Other amphibia	Possible as there is suitable habitat within the surrounding areas.
Fish	
Significant fishery	None present on site.
Other notable fish	None.
Macro-invertebrates (*NB.* Several species enjoy legal protection.)	

ITEM	OBSERVATIONS
Notable assemblage (terrestrial)	None present or indicated on site.
Notable assemblage (aquatic)	None.
Crayfish	None present.
Roman snail	None observed.
Lesser silver water-beetle	None.
Stag beetle	None.
Mining bees	None observed.
Other notable spp or groups	None present on site.
Notable invertebrate habitat	None present on site.
"Invasive" species (There are an increasing number of these being listed by authorities, some subject to regulatory control.)	
Japanese knotweed (or related *Fallopia* spp.)	None present on site.
Giant hogweed	None present on site.
Himalayan balsam	None present on site.
Tree-of-heaven	None present on site.
New Zealand pigmyweed	None present on site.
Floating pennywort	None present on site.
Parrot's feather	None present on site.
Water fern (*Azolla*)	None present on site.

ITEM	OBSERVATIONS
Weeds Act natives (common ragwort, creeping and spear thistles, curled and broad-leaved docks)	None recorded.
Other exotics that may cause problems such as *Rhododendron ponticum, Buddleia davidii.*	None recorded.
Invasive animals (signal crayfish, killer shrimp, oak processionary moth, harlequin ladybird, zebra mussel, grey squirrel *etc.*)	None recorded.
Phytophthora ramorum and other serious plant diseases (sudden oak death, *etc.*)	None observed on site.
Policy	
Are there any known conflicts with local planning biodiversity policy	If bats are present within the barn there is a potential conflict resulting from the development proposals.
Are there any known conflicts with national planning biodiversity policy	If bats are present within the barn there is a potential conflict resulting from the development proposals.
Are there any known conflicts with European or international biodiversity policy	If bats are present within the barn there is a potential conflict resulting from the development proposals.

GEOLOGICAL CONSERVATION (Geodiversity is a material planning consideration)	YES/NO	ACTION REQUIRED IF "YES"
Are there any features of geological importance on the development site?	Unknown	
Are there any features of geological importance adjacent to the development site or that might be affected by the development (during or post construction)?	Yes Otterpool Quarry	Otterpool Quarry- shows the finest section through the Cretaceous Hythe Beds in East Kent and is of particular significance in showing the contact between this formation and the Sandgate Beds above. The Hythe Beds are especially fossiliferous at this locality and are unusually rich. in ammonites of the deshayesi and bowerbanki

		Zones. A key stratigraphic locality, both for the formations it exposes and its correlatable ammonite faunas. (Source Citation Doc). This site will not be directly be affected by the development proposal.

FIGURE 3: PHOTOGRAPHIC RECORD AT UPPER OTTERPOOL.

Rear view of barn



Side view of barn



Front view



General view



Maintained lawn



Maintained lawn/rough grassland



Rough grassland at woodland interface



Priority woodland



View north east



View to rear of barn



View east



Dry pond



5. RECOMMENDATIONS

These recommendations are to meet compliance with current legislation, planning policy and best practice as recognised by the various statutory authorities. They are intended to fulfill ecological planning formalities and facilitate the implementation of the project.

1. **Bats –** The barn interior is vaulted with no separate roof void. The external parts of the barn have timber cladding on external walls and a peg tiled roof covering both of which provide potential bats roosting features, particularly for crevice dwelling bats. The surrounding area is considered to be good foraging habitat for bats with both woodland and farmland habitats. It is recommended using Bat Conservation Trust Guidelines that the barn is subject to two emergence return surveys to establish the presence/absence of bats within the barn (with a further survey should bats be found) . Survey period April-September with peak survey period for maternity roosts June-July.

2. **Birds -** The hedgerows, woodland and trees across the site provide nesting bird habitat, therefore any hedge and tree clearance should be undertaken outside the bird breeding season (typically, March – August). If this is not possible then it is recommended that a suitable qualified ecologist checks the site for any active nests before commencement of any vegetation clearance.

3. **Reptiles -** The grassland immediate to the barn is maintained as lawn and therefore sub-optimal for foraging reptiles and amphibians. It is recommended these areas are continually maintained at lawn length to dissuade any animals from colonising. In addition it is recommended the longer grassland is left in situ to encourage reptiles into this habitat and away from any potential working zones.

4. **Great crested newts -** The pond within the grounds was dry at the point of survey and appears to have the lining compromised where it is unlikely to hold water permanently therefore also unlikely to support populations of great crested newts. There are a small number of ponds all of which are located more than 500m from Upper Otterpool and separated by main roads such as the A20 and Otterpool Lane providing an obvious barrier to dispersal of the species.

3. Formally instruct contractors and site personnel on agreed policies, recommendations and requirements to maintain environmental quality and minimise impacts during any proposed construction, generally avoiding unnecessary disturbance and pollution.

4. In compliance with National Planning Policy Framework paragraph 125, avoid unnecessary negative impacts of new lighting at night, *e.g.* on bats, invertebrates, plants, astronomy. Minimise the hours when lighting is used, avoid "spillage" by using directional down-lighting, reduce brightness of necessary illumination and keep light from shining on bat roost entries, mammal holes, *etc.*

6. BIODIVERSITY ENHANCEMENTS

Ecological enhancements should where possible be included in the proposed development plans to contribute towards the intended objectives of planning legislation below:

The UK Government published the National Planning Policy Framework (NPPF) which states that opportunities to incorporate biodiversity in and around developments should be encouraged—(Para 118). The design and implementation of habitat enhancements can also be used to contribute towards the "Home Quality Mark" or similar accreditation, should this be a consideration for this site.

Biodiversity enhancements for the site could include some of the following:

- Provision of ready-made bird boxes (sparrow terrace timber boxes or house martin nests for instance or mix of open-fronted and hole-nesting boxes constructed from woodcrete suitable for starlings and other hole nesting species).
- Provision of reptile / amphibian hibernacula (as standalone or within new walls by creating recesses into wall structures).
- Provision of log piles for invertebrates (including stag beetles), reptiles and amphibians.
- Use native planting (preferably of local origin) in all landscaping. Where exotic species are planted, always avoid invasive species and choose those with wildlife value such as for nectar or shelter
- Priority should be given to species present on the Kent Biodiversity Action Plan species list, and where there is the potential for that species to occur on site.
- The list includes great crested newt, common toad, viviparous lizard, slow-worm, grass snake, adder, house sparrow, tree sparrow, hedgehog, noctule, soprano pipistrelle, brown long-eared bat, brown hare, water vole, harvest mouse, dormouse, otter as well as many more species. https://www.kmbrc.org.uk Design and incorporate Sustainable Drainage Systems (SuDS) in agreement with the Environment Agency or other relevant authority

7. REFERENCES

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