

BASELINE ECOLOGICAL ASSESSMENT

LAND OFF

BARNABY MEAD

GILLINGHAM

DORSET

MAY 2010

CONTENTS

1.0	INTRODUCTION	3
2.0	SURVEY RATIONALE AND METHODS	3
3.0	SURVEY FINDINGS.....	5
4.0	PREDICTED IMPACTS AND MITIGATION RECOMMENDATIONS	8
	BIBLIOGRAPHY	11
	APPENDIX 1.....	12
	APPENDIX 2.....	13
	APPENDIX 3.....	14

1.0 INTRODUCTION

Ambios Ecology LLP was commissioned by Brimble, Lea & Partners to conduct a baseline ecological assessment of land off Barnaby Mead, Gillingham, Dorset (site centre ST810268). An assessment was required to identify any ecological impacts that might arise from the proposed development of the site for housing. A plan showing the boundary of the survey area (hereafter referred to as 'the site') is shown in Figure 1 below.



Figure 1 – showing survey area (boundary in red)

A site survey was undertaken on the 27th of April 2010. At this time all land was checked for the presence of species and habitats of significant ecological value.

Where public access allowed, adjacent land was also examined during the survey.

2.0 SURVEY RATIONALE AND METHODS

The assessment rationale adopted for this survey is based upon the '[Guidelines for Ecological Impact Assessment in the United Kingdom](#)' (Institute of Ecology and Environmental Management, 2006). A baseline ecological assessment is used to identify, quantify and evaluate the potential impacts of defined actions on ecosystems or their components. Further information on the general survey rationale is provided in the appendices.

The method of assessment involves a field survey of the site. The information obtained from the field survey allows an assessment of the likely impacts of the proposed work on the ecology of the following:

Ecologically important habitats

These habitats are identified on the ground and, where necessary, may be confirmed by means of a data search with the local Biological Records Centre. They include Special Areas of Conservation (SAC's), Sites of Special Scientific Interest (SSSI), County Wildlife Sites (CWS), Potential County Wildlife Sites (pCWS), Regionally Important Geological and Geomorphological Sites (RIGS), Ancient Woodland Inventory Sites (AWI) and Culm Grassland Sites (CGS).

Specially protected animal species

These include all species listed under Schedule 5 of the Wildlife and Countryside Act 1981, and include European Protected Species (EPS) such as dormice, water voles, great crested newt, otter, and bats. Habitat features likely to be of value to these species are also identified during the field survey.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992. The field survey is used to search for badger setts, using the following methods:

- The development area is walked and the ground checked for the presence of badgers' setts.
- If evidence of badgers (e.g. runs, hairs and dung pits) is found around the site boundary, and access is possible, the survey is extended off site for a distance of at least 30 metres.
- Any badger sets found within this search area are assessed for their likely 'status' (i.e. main sett or other).

This level of survey is deemed adequate in relation to most development schemes, as it identifies setts that may be directly affected by the works (i.e. setts located on the development site itself), as well as setts that might be prone to disturbance (i.e. within 30 metres of the development boundary).

Invasive species

The field survey includes a check for invasive species, particularly Japanese knotweed, Himalayan balsam and giant hogweed, for which legislation and/or specific guidelines apply prior to excavation of the soil in which they are found.

The presence of plant species of significant nature conservation value

Such plant species are most likely to be associated with the ecologically important habitats identified by the fieldwork.

Presence of nesting birds

During the breeding season (generally agreed to be between the 1st of March and 14th of August for most species likely to be encountered), information on nesting birds is gathered wherever possible.

(N.B. Cirl buntings are found in some parts of Devon and Cornwall, especially along the southern coastal strip between Plymouth and Dawlish Warren. This species is a high conservation priority in the UK, and can continue to breed into early September in any year. Particular attention is paid to identifying potential impacts on this species where work is planned in confirmed cirl bunting areas during the breeding season).

Biological value of hedgerows

The biological value of hedgerows is assessed as part of the survey (using criteria from the Hedgerow Survey Handbook, Second Edition, DEFRA, 2007). General recommendations for working through hedges are also provided in Section 3.3.

Ecological value of water features

All rivers, streams and other watercourses are assessed for their overall ecological value during the survey.

3.0 SURVEY FINDINGS

General description

The site comprises an area of gently sloping pasture on the northern edge of Gillingham. Existing housing lies to the immediate west (Barnaby Mead/Mulberry Close) and to the east (Bay Lane). The grounds of Gillingham School lie to the south, whilst the northern site boundary adjoins Shreen Water (a tributary of the River Stour).



View of site looking towards northern boundary (Shreen Water arrowed)



View of northern end of site, with course of Shreen Water arrowed

General habitat value

As a whole the site is considered to be of low ecological value.

Pasture

The pasture is characterised by a fairly uniform sward of commonly-occurring plant species; including perennial rye-grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), cocksfoot (*Dactylis glomerata*), Timothy-grass (*Phleum pratense*), creeping buttercup (*Ranunculus repens*), meadow buttercup (*Ranunculus acris*), broad-leaved dock (*Rumex obtusifolius*), and red clover (*Trifolium pratense*). Black knapweed (*Centaurea nigra*) is occasional throughout, and a few tussocks of tufted hair-grass (*Deschampsia caespitosa*) are found in wetter soils bordering Shreen Water. This area appears to be regularly mown, and as such lacks any structural diversity.

Riverbank vegetation

Riverbank vegetation along the southern side of Shreen Water is limited to a narrow band (from 3 to 6m in width) that is characterised by extensive patches of nettle (*Urtica dioica*), bramble (*Rubus fruticosus*), hogweed (*Heracleum sphondylium*) and great willowherb (*Epilobium hirsutum*). In a few areas with wetter soils, patches of wood small-reed (*Calamagrostis epigejos*), soft rush (*Juncus effusus*) and meadowsweet (*Filipendula ulmaria*) are found.

Marginal aquatic vegetation along the river channel comprises occasional patches of branched bur-reed (*Sparganium erectum*), bulrush (*Typha latifolia*) and yellow iris (*Iris pseudacorus*). A number of mature willow (*Salix* spp.) trees are found along this section of the watercourse, all on the northern riverbank.

The same riverbank vegetation is found more extensively along the same watercourse to the west of the site.

Conservation designations

Reference to the 'MAGIC' database (www.magic.gov.uk/website/magic) and Natural England's inventory of conservation areas indicate that no important wildlife sites are found within 3km of the site.

Evidence obtained in the field, as well as reference to published data on plant and animal species locally, was deemed adequate for the purposes of identifying potential impacts on specially protected species. As such no data search for species records was undertaken with the local Biological Records Centre.

Nesting birds

It is possible that some relatively common bird species (e.g. wren, blackbird, robin, blue tit, which were all seen during the survey) may use suitable vegetation on site (namely hedges and riverbank vegetation) for nesting during the breeding season (i.e. between the 14th of March and 14th August inclusive). The main body of the site is however too open and exposed to provide cover for nesting.

Schedule 5 animal species

Dormice

No habitat of value to dormice is found on site. No scrub or woodland is present, and the only hedges on site are too severely cut back to be used by this species.

Bats

No features likely to be of value to roosting bats are found on site – it should be noted that no mature trees are present.

The site as a whole may be used by bats for feeding, though given the location of the site and species-poor habitat present, this is likely to be by widespread and relatively common bat species (e.g. *Pipistrellus* spp., Noctule, Daubenton's); and largely confined to the corridor of Shreen Water (i.e. outside the site boundary).

Reptiles and amphibians

No habitat of significant value to amphibians is found on site. Shreen Water lies c.20m to the north of the site boundary (as shown in Figure 1), and is therefore unlikely to be affected by any development.

Regular cutting of the pasture will prevent use of this habitat by reptiles - the sward is currently too open and exposed to provide sufficient cover for these species. The band of riverbank vegetation may be used by grass snake.

Otters

No habitat or features of significant value to otters (e.g. holts) are found, either on site or along the banks of Shreen Water. (N.B. This watercourse is however likely to form part of the home range of the local otter population).

Water voles

Reference to the NBN database shows records for water vole within 1km of the site (to the north). The character of Shreen Water along the northern site boundary appears suitable for this species – though no droppings, burrows or other signs were noted at the time of survey.

Hedgerows

Hedgerows are found along the eastern, southern, and part of the western, site boundaries. All sections are species-poor and well managed (i.e. cut). No hedge qualifies as 'biologically important' under the Hedgerow Regulations.

Trees

No mature trees are found on site. A number of mature willow trees are found on the northern bank of Shreen Water, c.20m from the site boundary.

Water features

Shreen Water lies c.20m to the north of the site. This watercourse is likely to be used on an occasional basis by otters, and may be used by water voles.

Badgers

No badger setts were found on site during the survey.

Invasive species

There was no evidence of invasive species on site at the time of survey. Whilst there is nothing to indicate these species are present, it should be noted that the survey was undertaken at a time of year when these plants may be obscured by taller vegetation.

4.0 PREDICTED IMPACTS AND MITIGATION RECOMMENDATIONS

Overview

The nature and degree of any impacts depends upon the extent and timing of works being proposed; in particular, whether or not the works are to take place in areas likely to be used by specially protected animal species; e.g. nesting birds, dormice, bats, reptiles, amphibians and otters.

At the time of reporting it is understood that any proposed development will be confined to the area within the site boundary shown in Figure 1 of this report. Access to the development is assumed to be via Mulberry Close. As such, the main conclusion of this survey is that the proposed development is unlikely to have a significant impact on habitats or species of significant ecological interest, as:

- The site does not contain habitats that are of national or regional importance to wildlife.
- The site does not contain habitats likely to support significant populations of specially protected animal species.

- Areas of potential value to protected species are found locally. Of particular potential is Shreen Water, which may be used by otters and water voles. All of these areas, including Shreen Water, however lie at least 20m away from the site boundary.

Appropriate best practice mitigation is however provided below to ensure any development does not result in impacts on local wildlife. (N.B. Any change in the proposed development area may also lead to impacts that have not been considered as part of this current study).

Habitats

No specific habitat recommendations are required for the development site.

Shreen Water, including the marginal vegetation along the southern bank, must however be protected from disturbance during and after development. It is therefore recommended that a strip of land c.10m wide be left unmanaged along the southern side of this watercourse. This strip should be fenced if at all possible. Establishment of this strip will require consultation and approval from the Environment Agency.

Nesting Birds

A number of common bird species may breed in some sections of boundary hedges, as well as riverbank vegetation along Shreen Water. It is an offence to damage or destroy the nest of any wild bird, and to disturb birds whilst nesting. If removal of any section of hedgerow and/or work close to Shreen Water is required this should therefore be undertaken between mid-August and mid-March, i.e. outside the main nesting season.

If this is not possible Ambios Ecology should be contacted for further advice - there may be a requirement for a breeding bird survey to establish the presence/absence of nesting birds before such work takes place.

Schedule 5 animal species

Dormice

No specific mitigation for this species is currently required. As a matter of best practice however, should anyone later have any concern relating to the possible presence of dormice on site, please ensure work is stopped until further advice is obtained from Ambios Ecology.

Bats

No specific mitigation in relation to bats is currently required. However, should anyone later have concern regarding the possible presence of bats on site, please seek immediate advice from Ambios Ecology.

The proposed development is considered reasonably unlikely to seriously affect bat foraging locally, and so no further survey work in relation to bat flight activity is required.

Reptiles and amphibians

No specific mitigation for amphibians is required.

Protection of existing riverbank vegetation along Shreen Water will ensure grass snake habitat is unaffected by any development.

Otters

Protection of existing riverbank vegetation along Shreen Water, as well as the establishment of an unmanaged strip along this watercourse, will ensure otters remain unaffected by any development.

As there is no current evidence that otters are likely to breed on or close to the site, the proposed development is considered reasonably unlikely to result in disturbance to a 'significant group' of animals; as such there is no requirement for further survey work prior to development, or for the development to be licensed by Natural England.

Water voles

Protection of existing riverbank vegetation along Shreen Water, as well as the establishment of an unmanaged strip along this watercourse, will ensure water voles (if present) remain unaffected by any development.

As long as the proposed development does not extend any closer than shown in Figure 1 (c.20m from the watercourse) it is considered reasonably unlikely to result in disturbance to a 'significant group' of animals; as such there is no requirement either for further survey work prior to development, or for the development to be licensed by Natural England.

Given the sensitivity of water voles to human disturbance, it is recommended that the unmanaged strip be fenced post-development to prevent public access. This will need to be agreed with the Environment Agency.

Hedgerows

Hedgerows are not considered to be biologically important, and their removal (if required) would not be detrimental to local ecology. Any removal should however take account of the possible presence of nesting birds.

Trees

No mitigation is required.

Water features

Work near to all watercourses must ensure their complete protection against pollution, silting and erosion. This includes the possibility of disturbance to the streambanks and bed by vehicle movements etc.

The potential presence of water voles on Shreen Water makes the protection of this watercourse a high priority. It is therefore recommended that the Environment Agency be given notice of the intention to carry out work on site, and that suitable working methods to prevent any impacts be agreed prior to work commencing.

Badgers

No mitigation is currently required. However, should anyone later have concern regarding the possible presence of badgers on site, please seek immediate advice from Ambios Ecology.

Invasive species

No mitigation is currently required. However, should anyone later have concern regarding the possible presence of these species on site, please seek immediate advice from Ambios Ecology.

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APPENDIX 1

Consultation

Consultation with relevant nature conservation bodies helps to define the likely ecological impacts of the proposed development. Reference is made to relevant published information, such as the Ancient Woodland Inventory and the Invertebrate Site Register. Both statutory and non-statutory sites of nature conservation interest likely to be directly or indirectly affected by the development are also identified.

APPENDIX 2

Field survey

A field survey is used to produce maps showing habitats likely to be affected by the development.

The field surveyor will specifically identify:

- The presence of plant species of significant nature conservation value.
- General habitat value.
- Presence of nesting birds.
- The presence of animal species listed under Schedule 5 of the Wildlife and Countryside Act 1981, or habitat features likely to be of value to such species.
- The biological value of hedgerows and subsequent identification of those sections requiring notification under the 1997 Hedgerows Regulations.
- Ecological value of water features.
- Badger (*Meles meles*) activity within the survey area.
- The presence of invasive species, particularly Japanese knotweed, Himalayan balsam and giant hogweed, for which legislation and specific guidelines apply prior to site development.

APPENDIX 3

Criteria warranting Phase 2 survey Further survey work may be necessary if the baseline assessment identifies impacts on the following:

Species and/or populations

Rare species/populations (at national, regional or local level).
Species/populations important in the functioning of an ecosystem.

or

Sites

Sites of national, regional or local importance (as defined by Ratcliffe's 1977 *Nature Conservation Review* criteria).
Largely undisturbed semi-natural habitat (e.g. ancient woodland).

and

Aspects of biodiversity that cannot easily be replaced

Ancient semi-natural habitats.
Ancient trees.