



PV ECOLOGY



Land North of The Retreat, Croft Lane, Hayling Island, Hampshire, PO11 0LT.

Extended Phase 1 Ecological Assessment and Bat Inspection

Prepared on behalf of McAndrew Martin Chartered Surveyors

February 2012

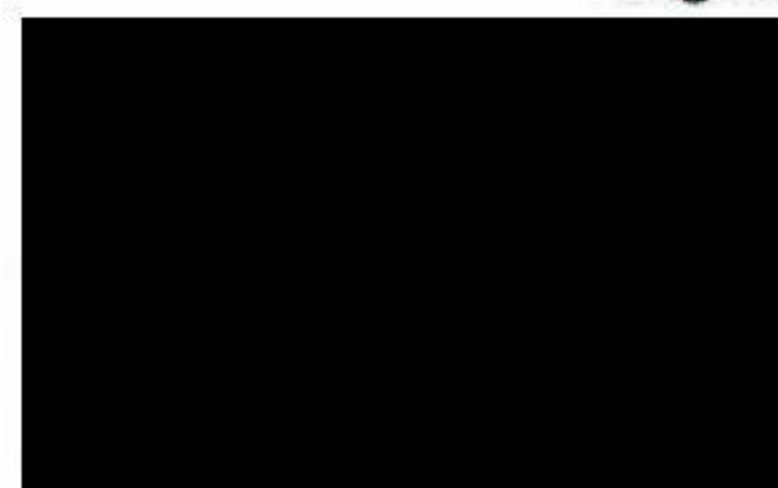
Land North of The Retreat, Hayling Island

Ecology 7056

Issue 02

Prepared by: Michelle Brown

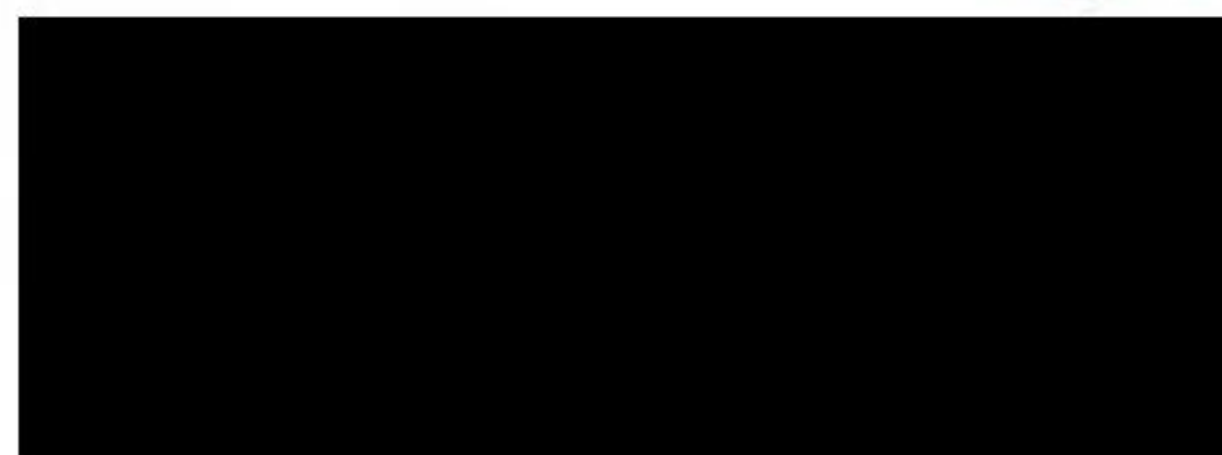
Signed:



Date: February 2012

Checked by: Davog McCloskey

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1.0 Executive Summary

- 1.1 Surveyor: Michelle Brown
Survey date: 08.02.12
Grid Reference: SU 71987 02502
Client/contact: McAndrew Martin Chartered Surveyors / Nigel Kirkby.
Protected Species Found: None (Potential for reptiles and nesting birds).
- 1.2 The clients are proposing to construct two new chalet-style dwellings within land north of The Retreat, Croft Lane, Hayling Island. Proposals also include the construction of two associated garage blocks. Havant Borough Council highlighted the need for an initial bat inspection and Phase 1 Ecological Assessment of the site to assess the potential ecological impacts of the proposals. PV Ecology was commissioned to provide the ecological assessments for application APP/11/01793.
- 1.3 The ecological assessment consisted of 1) a desk study of designated sites of conservation interest and protected and notable species in relation to the site, 2) an Extended Phase 1 Habitat Survey of the land within the footprint of the proposed development and a buffer zone of 50m outside the site boundary, and 3) an initial internal and external bat inspection of all buildings affected by the proposals.
- 1.4 The site consisted of semi-improved grassland, scattered broad-leaved trees, non-native ornamentals, species-poor hedgerows, scrub and tall ruderal vegetation. The site contained a disused brick-built stable block with pitched corrugated metal roof and a small concrete-built storage hut with sloped corrugated metal roof.
- 1.5 An external inspection of the stable block and storage hut recorded several potential access points for bats. However, internal inspection revealed no evidence to suggest current or recent bat use. The buildings are considered to be of 'low' suitability for roosting bats.
- 1.6 No further survey work for bats is required for the purposes of the proposed development.
- 1.7 The site was bordered by scrub and species-poor hedgerows with scattered broad-leaved trees. These habitat areas have the potential to support nesting birds. The proposed works will involve the removal or disturbance to some areas of scrub adjacent to the stable block and storage hut. The removal of this vegetation will avoid bird nesting season (01st March to 01st August, inclusive) unless prior inspection by an ecologist concludes there are no nesting birds present.
- 1.8 The site contained areas of bordering scrub with the potential to support reptiles. The proposed development will involve disturbance to a small area of this habitat adjacent to the stable block and storage hut. These areas will be either strimmed to ground level during the period that reptiles are inactive (early November to end of February) or in a two-stage cut if carried out during the reptile active period (end of February to end of October). This will allow reptiles to move in to nearby areas of suitable habitat and minimise the risk of harm of injury to these protected species.

- 1.9 The northern section of the site, currently paddock, is identified within the Brent goose strategy as unknown wader roosting potential. Natural England have commented (**Appendix G**) on the current proposals (**Appendix B**) stating that, in their current form, they are unlikely to have a significant impact on the SPA/SAC/Ramsar.
- 1.10 The report provides an assessment of the potential ecological impacts of the proposed development (**Section 5.0**) and details mitigation measures to be implemented prior to and during construction (**Section 6.0**). Mitigation measures include; a) further measures required to mitigate against the effects of the development, and b) further measures recommended to mitigate against the effects of the proposed development.
- 1.11 The results set out within this report are valid for one year from the issue date.

2.0 Introduction

Background

- 2.1 PV Ecology was commissioned on 7th February 2012 to carry out an Extended Phase 1 Ecological Assessment Survey and Phase 1 Bat Inspection of the land within the footprint of the proposed development on land north of 'The Retreat', Croft Lane, Hayling Island, PO11 0LT (grid reference SU 71987 02502). A planning application has been submitted to Havant Borough Council (APP/11/01793) for the construction of two chalet-style bungalows (**Appendix B**) and further ecological information has been requested by the Council. This report will contribute to this application. The results set out within this report are valid for one year from the issue date.
- 2.2 This report describes the current ecological baseline of the site, based on the findings of an Extended Phase 1 Habitat Survey and Phase 1 Bat Inspection and a review of existing data.
- 2.3 The methods employed to obtain ecological information on the site are described in **Section 3.0** of this report and the results are detailed in **Section 4.0**. **Section 5.0** identifies the potential impact on biodiversity receptors and **Section 6.0** describes the recommendations for further ecological survey work and the recommended environmental measures which should be incorporated into the scheme design to minimise potential effects on biodiversity receptors.

Site Description

- 2.4 The site is located on a 0.2ha plot of land to the north of the existing dwelling known as 'The Retreat' at grid reference SU 71987 02502 (**Appendix A**). The site currently contains an existing disused stable building and storage outbuilding. The site is located on the north-east edge of the village of Stoke in the north-west quarter of Hayling Island, approximately 0.4km west of Langstone Harbour. Residential properties border the south and west of the site, with arable land to the east and a horse paddock to the north.
- 2.5 The land within the site consists predominantly of semi-improved grassland, scrub and tall ruderal vegetation, with scattered broad-leaved trees, planted non-native ornamentals and species-poor hedgerows. It is managed as a garden and horse paddock.

Brief

- 2.6 To carry out an Extended Phase 1 Ecological Assessment of the land within the footprint of the proposed development works; to carry out an initial internal and external inspection to assess the building's potential to support roosting bats; and to inform the clients of any ecological implications of their proposals and of any further survey work and/or mitigation required.

3.0 Methodologies

Desk Study

- 3.1 The desk study methodology is based upon guidelines set out by the Institute of Environmental Assessment (IEA, 1995) and the Institute of Environmental and Ecological Management (IEEM, 2006). A data-gathering exercise was undertaken to obtain any available information relating to statutory and non-statutory nature conservation sites, priority habitats and species, and legally protected and controlled species using a range of sources (**Table 3.1**).
- 3.2 Given the proximity of the scheme to biodiversity resources located off site, data was requested for:
- statutory sites of nature conservation interest located on or within 1km of the site;
 - Biodiversity Action Plan (BAP) Priority habitats within 1km of the site
 - records of priority legally protected and controlled species to a distance of 1km from the site boundary.

Table 3.1: Summary of information sources used for the Desk Study

Organisation / Source	Information Sought
National Biodiversity Network (NBN)	Records of protected and/or notable species within 1km of the site.
Natural England	Locations of, and citations for, any SSSI, SAC, SPA or Ramsar sites within 2km of the site
MAGIC	Locations of all statutory wildlife sites and areas and BAP habitats within 1km of the site
Ordnance Survey Maps	Large scale habitat information and identification of off-site habitats which may require consideration (such as ponds)
Local Biodiversity Action Plan (LBAP)	Listings of LBAP species and habitats

Extended Phase 1 Habitat Survey

- 3.3 The site was visited on the 8th February 2012. The survey employed techniques based on standard Phase 1 Habitat Survey methods (JNCC, 2006). Habitat types on and immediately adjacent to the site were identified according to standard habitat definitions and mapped at an appropriate scale using standard colour codes and/or acronyms (**Appendix C**).

- 3.4 The collection of botanical information focused on the dominant and/ or key indicator species for each habitat, to allow allocation of habitats to the standard Phase 1 habitat types and where relevant to identify any LBAP habitats which are present on site. Any habitats identified as having potentially high botanical value will be subject to further botanical surveys, if deemed necessary.
- 3.5 The Phase 1 Habitat survey methodology was 'extended' in accordance with EIA guidelines (EIA, 1995) to include an assessment of the potential for habitats on or immediately adjacent to the site to support legally protected or conservation-notable species. The location and nature of any signs of the presence of protected species (such as droppings, footprints, burrows, etc.) were documented and mapped accordingly. Corresponding target notes are included in **Appendix D**. Indicative methods for protected species are outlined below.

Bats

- 3.6 Extant buildings and trees were inspected for potential roosting areas that could support bats. The on-site buildings were searched internally and externally for evidence of bats and evaluated for their potential to support bat roosts. Particular attention was paid to the following:

Trees

- Mature trees with ivy covering and/or crevices and peeling bark

Outside of building

- Stone crevices or cracks in brickwork, areas of hanging tiles or weatherboarding, gaps between roofing materials and the main building structure, ground outside any potential access points.

Inside of building

- Floors, on and between any ridge beams or other parts of roof timbers that are deemed accessible to bats, within crevices of stonework and under tiles (where accessible).

Evidence searched for to indicate usage of bats included:

- Droppings
- Urine staining
- Worn entrances or claw marks around potential access points
- Insect feeding remains
- Oil staining left from bat fur
- Live/dead bats

Birds

- 3.7 Any habitat features, for example, scrub, trees and buildings which could potentially be used by nesting birds, including barn owl, were surveyed and any signs of nesting activity, droppings or pellets were noted. The habitat was also assessed regarding its potential for bird activity (e.g. foraging).

Reptiles

- 3.8 Habitat features that could be suitable as hibernacula, foraging or basking areas were noted. Extant refugia were lifted and examined for evidence of reptiles, including sloughs (shed skins).

Badgers

- 3.9 Any area that could be used for foraging or could potentially contain a badger sett was surveyed and any signs noted including:
- Evidence of active or disused setts
 - Evidence of potential badger diggings
 - Latrines / dung pits
 - Evidence of badger foraging ('snuffle holes')
 - Footprints
 - Badger hairs

Great Crested Newts

- 3.10 Any ponds present on-site or immediately adjacent to the site were assessed for their potential to support great crested newts and other amphibians. Ponds within the vicinity of the site were noted and the potential of the land to act as a commuting route, shelter or foraging resource for great crested newts was assessed.

Otters and Water Voles

- 3.11 Any riparian habitat present on-site or immediately adjacent to the site was searched for signs of otters and water voles. Signs included:
- Otter spraints or sign heaps
 - Water vole latrines and feeding stations
 - Evidence of potential holts or burrows
 - Footprints

Dormice

- 3.12 The suitability of the habitat was assessed for dormice. Any small mammal feeding signs were checked and assessed, including:
- Examination of hazel nuts
 - Evidence of nest building

4.0 Results

Desk Study

Nature Conservation Sites

- 4.1 The boundary of the Chichester and Langston Harbours Ramsar site and Special Protection Area (SPA), the Solent Maritime Special Area of Conservation (SAC) and the Langston Harbour Site of Special Scientific Interest (SSSI) lay approximately 400m from the boundary of the site. The boundary of the West Hayling Local Nature Reserve (LNR) lies approximately 500m to the north-west. The boundary of the Chichester Harbour Area of Outstanding Natural Beauty (AONB) lies approximately 900m to the south-east. No other statutory protected sites were recorded within 1km of the proposed development. The statutory site search via DEFRA website, MAGIC, is displayed in **Appendix E**.

Biodiversity Action Plan (BAP) Priority Habitats

- 4.2 The data search revealed five BAP Priority Habitats are present within 2km of the site:
- Lowland meadow (approx. 300m north-west)
 - Mudflats (approx. 450m west)
 - Saline lagoons (approx. 450m west)
 - Traditional orchard (approx. 560m south-east)
 - Reed beds (approx. 1000m south-east)

Full BAP Priority habitat data provided by MAGIC are included in **Appendix F**.

Ponds within 500m

- 4.3 The data search revealed the presence of five ponds within 500m of the site boundaries. The closest of which is situated approximately 230m to the south of the proposed development site.

Protected and Notable Species

- 4.4 The NBN Gateway datasets were searched for records of protected and notable species which have been recorded within 1km of the site. Key species records are summarised below.

Badgers

- 4.5 The desk study revealed no records of badger (*Meles meles*) within 2km of the proposed development site.

Bats

- 4.6 At least three species of bat have been recorded on Hayling Island, including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*pipistrellus pygmaeus*) and noctule (*Nyctalus noctula*). Records ranged from 1998 to 2010. None of the records were from within 1km of the site.

Birds

- 4.7 No records were returned for barn owl (*Tyto alba*) from within 1km of the site. Records of barn swallow (*Hirundo rustica*) were returned from within 1km of the site, dated between 1988 and 2011. Dark-bellied brent geese (*Branta bernicla*) have been recorded within 1km of the site. The paddock to the north of the site has been identified as having unknown wader potential within the Brent Goose and Wader Strategy.

Dormice

- 4.8 No records were returned for hazel dormouse (*Muscardinus avellanarius*) within 1km of the site.

Great Crested Newts

- 4.9 The data search returned no records of great crested newt (*Triturus cristatus*) within 1km of the site.

Otters and Water Voles

- 4.10 No records for otter (*Lutra lutra*) or water vole (*Arvicola amphibius*) were returned from within 1km of the site.

Plants

- 4.11 No records for Schedule 8 or 9 plant species were returned from within 1km of the site.

Reptiles

- 4.12 Records were returned for two reptile species within 1km of the site. One record was returned for common lizard (*Zootoca vivipara*) dated from 1990, and two records of slow-worm (*Anguis fragilis*) dated from 1990 to 1995.

Other Species (including amphibians, invertebrates, mammals)

- 4.13 The data search returned no records of other protected species from within 1km of the site.
- 4.14 None of the records returned from the data search are believed to have occurred within the site itself or on land immediately adjacent to the site.

Extended Phase 1 Habitat Survey

Introduction

- 4.15 The survey was carried out on 08th February 2012 by a Consultant Ecologist under overcast and cool weather conditions.
- 4.16 The results of the Extended Phase 1 Habitat Survey are presented in the sections below. An illustrated and annotated Extended Phase 1 Habitat Survey Map is presented in **Appendix C**. The map illustrates the location and extent of all habitat types recorded on site, along with additional notable features or details depicted with target notes. A corresponding list of target notes to accompany the Extended Phase 1 Habitat Survey Map is provided in **Appendix D**.

Site Constraints

- 4.17 It was not possible to gain full access under every beam during the internal inspection of the stable block. However, this report concludes that the building is of 'low' suitability for roosting bats and their presence in this structure is highly unlikely.
- 4.18 It was not possible to gain access to the five ponds present within 500m of the site to assess their suitability to support great crested newts. However, the site did not contain any water bodies suitable for newt breeding and there are no records of this species within 1km of the site. It is therefore considered unlikely that the proposed works will present the risk of harm, injury or disturbance to this species.

Habitats

- 4.19 The site is situated on the north-east edge of the village of Stoke, with residential properties and associated curtilage present on the south and west sides, and horse-grazed paddocks to the north and east. Croft Lane borders the south-east quarter of the site, with agricultural land beyond.
- 4.20 The site contains an existing un-occupied residential dwelling known as 'The Retreat', with associated curtilage consisting predominantly of semi-improved grassland, gravel hard standing, scrub and ruderal vegetation. The site contains a disused stable block and storage hut to the north of the property, with an area of grassland previously used for horse-grazing beyond. The site is bordered by species-poor hedgerows and scrub, and contains scattered native and non-native trees and shrubs. Recent cessation of grassland and scrub management within the site boundaries has led to ruderal encroachment and the early stages of grass tussocks.
- 4.21 Two buildings present within the site boundary will be affected by the proposed development works; the stable block and storage hut. The stable block consisted of a single-storey brick-built structure, open to the rafters, with a corrugated metal pitched roof. The storage hut consisted of a single-storey concrete structure, open to the rafters, with a sloped corrugated metal roof. The proposals involve the demolition of both structures to facilitate the construction of two new dwellings. The un-occupied dwelling known as 'The Retreat' is not included within the proposals and is therefore not considered further for the purposes of this report.

4.22 Habitats recorded within the site boundary and immediate vicinity comprised:

- Semi-improved grassland
- Scrub and tall ruderal vegetation
- Species-poor hedgerows
- Scattered native and non-native trees and shrubs
- Brick-built single-storey stable block (B1)
- Concrete-built single-storey storage outbuilding (B2)
- Gravel / hard-standing

Each of the habitat types with potential to support ecological features is described in detail below. The distribution of each habitat type is represented in the Extended Phase 1 Habitat Map in **Appendix C** with corresponding target notes in **Appendix D**.

Semi-improved grassland

4.23 The site contained three main areas of grassland which, until recently, were regularly maintained at a sward height of approximately 10-20mm. The areas immediately surrounding 'The Retreat' and the stable block were dominated by perennial rye-grass (*Lolium perenne*) and red fescue (*Festuca rubra*), with abundant cock's-foot (*Dactylis glomerata*), frequent annual meadow grass (*Poa annua*), yarrow (*Achillea millefolium*), white clover (*Trifolium repens*), occasional creeping bent (*Agrostis stolonifera*), common mouse ear (*Cerastium fontanum*), ribwort plantain (*Plantago lanceolata*) and common cat's-ear (*Hypochaeris radicata*), dandelion (*Taraxacum officinale*), bristly ox-tongue (*Picris Hieracioides*), daisy (*Bellis perennis*), creeping buttercup (*Ranunculus repens*) and scarlet pimpernel (*Anagallis arvensis*) were also present, with patches of rough-stalked feather moss (*Brachythecium rutabulum*), lords and ladies (*Arum maculatum*) and columbine (*Aquilegia formosa*).

4.24 The horse paddock area to the north of the stable block was dominated by perennial rye-grass (*Lolium perenne*) and red fescue (*Festuca rubra*), with abundant cock's-foot (*Dactylis glomerata*), frequent ragwort (*Senecio jacobaea*), broad-leaved dock (*Rumex obtusifolius*), annual meadow grass (*Poa annua*), yarrow (*Achillea millefolium*), nettle (*Urtica dioica*), cleavers (*Galium aparine*), white clover (*Trifolium repens*), occasional creeping bent (*Agrostis stolonifera*), common mouse ear (*Cerastium fontanum*), ribwort plantain (*Plantago lanceolata*) and common cat's-ear (*Hypochaeris radicata*), bristly ox-tongue (*Picris Hieracioides*), creeping buttercup (*Ranunculus repens*) and teasel (*Dipsacus fullonum*) were also present, with patches of rough-stalked feather moss (*Brachythecium rutabulum*), common vetch (*Vicia sativa*) and common field speedwell (*Veronica Persica*).

Scrub and tall ruderal vegetation

- 4.25 Areas of scrub surrounded the northern horse paddock and patches of scrub and tall ruderal vegetation were present within the grassland. The north and west sides of the stable block and the storage outbuilding were surrounded by scrub and tall ruderals, with scrub at the hedgerow bases on the east side of the access track. Scrub areas were dominated by bramble (*Rubus fruticosus*) and nettle (*Urtica dioica*), interspersed with broad-leaved dock (*Rumex obtusifolius*), spear thistle (*Cirsium vulgare*) and occasional ivy (*Hedera helix*) and ground ivy (*Glechoma hederacea*).

Species-poor hedgerows

- 4.26 Hedges bordering the east of the site consisted of hawthorn and bramble (*Crataegus monogyna*) with occasional field maple (*Acer campestre*). Hedges at the north-west corner of the northern horse paddock and the south and south-east borders of 'The Retreat' were dominated by leyland cypress (*x Cupressocyparis leylandii*) and privet (*Ligustrum sp.*). Hedgerows had low diversity of ground flora and poor structural diversity.

Scattered native and non-native trees and shrubs

- 4.27 The site contained several trees and shrubs, both native and non-native. Native species included walnut (*Juglans regia*), field maple (*Acer campestre*), ash (*Fraxinus excelsior*), oak (*Quercus robur*), beech (*Fagus sylvatica*) and elm (*Ulmus minor var. vulgaris*). Non-native species included cherry laurel (*Prunus laurocerasus*), Leyland cypress (*x Cupressocyparis leylandii*), and butterfly bush (*Buddleja davidii*).

Brick-built single-storey stable block (B1)

- 4.28 A brick-built single-storey stable block was present within the north-west corner of the site (**Figure 1**). The structure had a pitched corrugated metal roof with metal ridge and was open to the rafters. The building was comprised of six compartments, including a lean-to at each end. The building is depicted as B1 on the Extended Phase 1 Habitat Map in **Appendix C**.



Figure 1: Brick-built single-storey stable block (B1)