



**Home and Country Solutions
Ecological Consultants**

Windroos Nursery

Worthing Road

Littlehampton

West Sussex

**Extended Phase 1 Habitat Survey Report.
Bat Survey
Reptile Habitat Assessment**

July 2010

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Extended Phase 1 Habitat Survey Report.

Contents.

1.0 INTRODUCTION	2
1.1 Background	2
1.2 Site description	2
2.0 METHODOLOGY	4
2.1 Desk Study	4
2.2 Site Survey	4
2.3 Bat survey	4
2.4 Constraints	5
3.0 DESK STUDY RESULTS	5
3.1 Introduction	5
3.2 Nature Conservation sites	5
3.3 Protected Species	5
4.0 EXTENDED PHASE 1 HABITAT RESULTS	6
4.1 Introduction	6
4.2 Main habitats found on site	7
4.3 Protected species	8
4.4 Bat Survey	8
5.0 DISCUSSION	9
5.1 Nature conservation sites	9
5.2 Habitats	9
5.3 Protected species	9
6.0 CONCLUSIONS	9
7.0 RECOMMENDATIONS	10
8.0 REFERENCES	10
APPENDICES	
i) Habitat plan	11
ii) Target Notes	12
iii) Legislation	13
iv) Photographs	14
v) Site location map	17

Extended Phase 1 Habitat Survey Report.

1.0 INTRODUCTION.

1.1 BACKGROUND.

Home and Country solutions were commissioned by Savills Planning & Regeneration and asked to carry out an extended Phase 1 Habitat survey on the site known as Windroos Nursery, Littlehampton.

The site forms part of an area of land identified in the Arun District Local Plan which was adopted in 2003 and it was envisaged that the land would be suitable for the development of around 180 new residential properties.

To assess the ecological interest of the site a desk study, an Extended phase 1 habitat survey and a bat survey were undertaken in June 2010.

1.2 SITE DESCRIPTION.

The site is situated to the north of the A259 (Worthing Road) and to the west of Watersmead Business park. The land to the north and west of the site has been developed in the past three years and is now a residential housing area with most of the properties now occupied.

The site is approximately 2.4 hectares (5.8 acres) and was formally the site of a nursery but the current occupier uses the land as a haulage depot for around thirty heavy goods vehicles. There are a number of buildings on site which include two bungalows used for residential purposes, a large workshop/garage area and two large glass house areas which are now derelict.

The site is located at National Grid Reference TQ 035 033. The survey is limited to the area marked in red (figure 1)

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Figure 1. Survey area

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2.0 METHODOLOGY.

2.1 DESK STUDY.

A desk Study was carried out to ascertain the statutory nature designations of the area and to determine which protected species have been recorded within 1km radius of the site.

The third parties used for the information and data search were:

- Sussex Biodiversity Record Centre.
- Multi-Agency Geographic Information for the Countryside (*Magic* Web site for statutory conservation sites).
- Nature on the map (Natural England Web site).
- Google Map.
- Arun District Council.

2.2 SITE SURVEY.

2.2.1 An Extended Phase 1 Habitat Survey (JNCC, 1993) of the site was conducted as part of the ecological assessment of the site by David Leach, an experienced ecologist. This standard technique for mapping and classifying British habitats as described in the Handbook for Phase 1 Habitat Survey (JNCC, 1993) was undertaken at the site on 30 June 2010. The aim of the survey was to provide a record of habitats that are likely to be ecologically important. During the Extended Phase 1 Habitat Survey, the presence, or potential presence, of protected species and species of conservation concern (including local Biodiversity Action Plan species) was recorded. Features and habitats capable of supporting such species were also noted.

2.2.2 Features and habitats with potential botanical or protected species interest which may require more detailed survey at specific times of year were identified.

2.2.3 The results of the Phase 1 Habitat Survey are presented in the form of a colour-coded plan with 'Target Note' locations marked. Target Notes show more detailed information on selected features of ecological interest, for example species-rich hedgerows, mature trees worthy of retention and habitat of potential value to protected species

2.3 Bat Survey.

The trees on site were assessed for their potential to support bats, this included looking for cracks, splits, holes and heavy ivy cover which might provide roosting sites for bats.

Extended Phase 1 Habitat Survey Report.

The buildings were surveyed both internally and externally for bats and signs of bats such as droppings, grease marks at holes in walls, soffits etc. and possible entry points such as loose or broken roof tiles.

2.4 Constraints.

Regular cutting of areas of the grass and ground clearance prevented a full botanical survey to occur however, it is unlikely that any species of conservation concern were missed.

The assessment of protected species in this survey will only provide an indication of a protected species occurring on the site based on the availability of suitable habitat and any direct evidence found during the survey. The absence of a particular protected species does not provide a definitive result, only that the species was not present at the time of the survey. If there are suitable habitats which provide medium to high ecological value for a particular protected species then an additional, full survey may be recommended.

3.0 DESK STUDY RESULTS

3.1 INTRODUCTION

Relevant ecological data obtained from the web sites and data searches above, has been reviewed and the results from these investigations are summarised in Sections 3.2 and 3.3 below.

3.2 Nature conservation sites

There are no statutory or non statutory nature conservation sites within a 1 km radius of the site.

3.3 Protected species.

During the desk study two protected species (both bats) were identified with a 1km radius of the site.

Bat sp. *Chiroptera* (unidentified bats in flight).

Pipistrelle Bat (species aggregate) (*Pipistrellus pipistrellus*) - unidentified roost, identified by bat droppings.

Two records of UK Biodiversity Action Plan priority species within 1km of the site were also found.

Common Lizard (*Zootoca vivipara*).

Common Toad (*Bufo bufo*).

No records were found which related specifically to the site.

Although only a few records were found in the data search from the Sussex Biodiversity Records Centre it is known from previous surveys that large numbers of reptiles were

Extended Phase 1 Habitat Survey Report.

found on the areas to the north and west of this site which have been developed in the last few years.

4.0 Extended Phase 1 Habitat Survey Results.

4.1 Introduction.

Weather conditions during the survey.

Parameter	Details
Temperature °C	21 - 25
Cloud Cover %	60 (light cloud)
Rain	none
Wind	none

The proposed development site is situated to the north of the A259 (Worthing Road) and west of Watersmead Business Park. The boundary of the land is marked on the north, west and east sides by a chain link fence. Some of this has become overgrown with Ivy (*Hedera helix*), Hedge Bindweed (*Calystegia sepium*) and Bramble (*Rubus fruticosus*). Behind this fence to the north and west there is another fence of wooden panel design which separates the gardens of the recently developed land from this property. The southern boundary with the Worthing Road is marked with a low, species poor hedge of mainly Hawthorn (*Crataegus monogyna*) but with some Elder (*Sambucus nigra*) and Ivy.

On site there are two large glass house areas, both in a poor state of repair with a number of missing and broken glass panels. The inside of the glass houses have been taken over by a dense growth of Brambles. There are two large garage/workshop areas and two bungalows. One of bungalow has a small garden to the south aspect laid mainly to lawn with a few larger shrubs and some medium sized conifer trees. The second bungalow has a larger garden with the main lawn area to the north and is bordered by a few mixed deciduous and conifer trees to the north and west and with an overgrown Privet (*Ligustrum vulgare*) hedge to the east. Large areas of the site have been used as hard standing for large vehicles.

The remaining land has been cleared and large areas of bare soil with some large heaps of soil were noted. There is also a wooden shed near the entrance of the site.

The results of the phase 1 habitat survey are presented in the form of a colour coded map with target notes identifying specific features. (Appendix 1 Figure 2),

Extended Phase 1 Habitat Survey Report.

4.2 Main habitats found on site.

- Scattered trees.

There is a row of approximately 18 mature Poplar (*Populus sp.*) trees along the eastern boundary. There are a number of conifer species on the site including *Cupresses sp.* and a few deciduous trees including *Eucalyptus sp.*

- Amenity grassland.

There are areas of regularly mown lawn near the two bungalows. This grass area makes up < 6% of the total site area and is species poor.

- Introduced shrubs.

There are areas of non-native shrubs in the gardens around the bungalows. This vegetation makes up only a very small percentage of the habitat on site.

- Intact hedge.

There are three areas of intact hedges on site, a 30m section on the western boundary and a 40m section on the southern boundary which are predominantly Hawthorn with some Elder, Ivy and Bramble. There is a 20m section of Wild Privet along the garden boundary on the eastern side of the site. Both the western and eastern sections of hedge are between 4 and 6m in height. There is little in the way of bottom flora in the hedges.

- Scrub

This is mainly Bramble with some Elder and is found extensively in the glass houses and along the outer edges where glass panels are broken or missing.

- Buildings.

Approximately 20% of the site is covered by buildings. The glass houses were in a poor state of repair and over run inside with brambles. There were two large garage/workshop buildings and two small bungalows on site. There were also a number of large metal transportation containers around the site

- Bare ground.

The majority of the southern part of the site is hard standing/ tarmac for the heavy goods vehicles which use the site. The north part of the site is partly hard standing but mainly ground which has been cleared back to bare earth. Ribwort Plantain (*Plantago lanceolata*), Yarrow (*Achillea millefolium*), Greater Plantain (*Plantago major*), Shepherd's Purse (*Capsella bursa-pastoris*), Herb-Robert (*Geranium robertianum*)

Extended Phase 1 Habitat Survey Report.

Stinging nettle (*Urtica dioica*) Scarlet Pimpernel (*Annagallis arvensis*) and Buddleia (*Buddleia davidi*) were noted on areas of the bare ground.

4.3 Protected species

- Mammals.

There were signs of a fox (*Vulpes vulpes*) having been on site and a rabbit (*Oryctolagus cuniculus*) was seen in the larger of the two gardens. Some rabbit dropping were seen on the bare ground to the north of the site where some rabbit burrows were observed. No other mammals or signs of mammals were seen on site.

The glass houses, outbuildings, bungalows and trees did not contain bats or signs of bats. There were no signs of Badgers (*Meles meles*).

- Birds.

There were a number of overgrown shrubs, mature trees and some hedgerow areas which provide suitable habitats for nesting birds. No rare or specially protected birds were recorded during the survey and the habitats on site are not known to support any such species. A number of nationally common birds were noted on site, mainly in the gardens of the bungalows. These included Blackbird, (*Turdus merula*) Robin, (*Erithacus rubecula*), Blue Tit (*Cyanistes caeruleus*), Wren (*Troglodytes troglodytes*), Wood Pigeon (*Columba palumbus*) and Dunnock (*Prunella modularis*).

- Reptiles and Amphibians.

The site is mainly hard standing and grass/scrub vegetation has been cleared over most of the site. There are no ponds on site or nearby. Slow worms (*Anguis fragilis*) and possible other reptiles may be found in the gardens and within the boundary hedges but although looked for during the survey, no signs of reptiles were found on the site.

- Flora.

The site had been previously used as a nursery and the majority of the available land not given over to hard standing or buildings had been cultivated over the years. Most of the area which has supported vegetation in the past has now been cleared. The remaining areas, which include the hedgerows, have low species diversity and are unlikely to contain species of conservation interest.

- Bat Survey.

The site has a number of mature trees but none were considered to be of high bat potential, lacking the features such as holes, cracked / split limbs and dense ivy growth. The hedge and tree habitats may be suitable for foraging and commuting bats.

The glass houses and workshop areas are unsuitable habitats for bats. The bungalows were surveyed but there were no signs of bats in the roof spaces and no obvious entry points into the buildings.

No sign of any protected species was seen on site during the phase 1 habitat survey.

Extended Phase 1 Habitat Survey Report.

5.0 Discussion

- Nature conservation sites.

There are no statutory or non-statutory conservation sites within a 1km radius of the site.

- Habitats.

A number of different habitats are found on the site but these are generally of low ecological potential.

The trees and hedges provide some potential for nesting birds and may be used by foraging and commuting bats.

Some of the shrubs and hedges could provide berries and seed for birds. The hedgerow bottoms and the introduced shrubs in the gardens of the bungalow provide some potential for reptiles and the bare ground could be used by reptiles for basking. The buildings were considered to be of low potential for roosting bats. The habitats on site were considered unsuitable for other mammals such as Badgers. The site is considered unsuitable for amphibians due to lack of ponds on or near the site

- Protected species.

No protected species were found on site and the main habitats provide little ecological value for most protected species. Although no reptiles were seen during this survey and much of the habitat on site is unsuitable for reptiles their presence cannot be ruled out. The presence of large numbers of reptiles previously found during a survey of adjoining land means there is a possibility that there may be some reptiles on this site.

6.0 Conclusions.

- There are no Statutory or Non-statutory nature conservation sites within 1 km of the site and no local nature sites nearby.
- There are no locally important ecological habitats on site.
- No significant plant species were found on site.
- During this survey no protected species found on site.
- The site is of poor ecological value from both a habitat and protected species perspective.
- The development is unlikely to have a negative impact on the local flora and fauna.
- With suitable planting and provision of bat boxes, bird boxes etc. the ecological potential of the site could be enhanced.

Extended Phase 1 Habitat Survey Report.

7.0 Recommendations

- Any work which involves the clearing of any remaining vegetation should not be carried out during the bird breeding season (beginning of March to the end of August). If vegetation clearance has to be carried out during the breeding season then an experienced ecologist should check for breeding birds prior to any vegetation removal.
- As all reptiles are legally protected it is recommended that a reptile survey is carried out prior to work starting to determine if reptiles are present in the hedgerows and gardens and arrangements made to relocate any found to a suitable, local site. A reptile survey will minimize the potential for harming reptiles and committing an offence under the Wildlife and Countryside Act 1981 (as amended). The optimum months for reptile surveys are April, May and September although surveys can be carried out between March and October.
- While of poor species composition, it would be desirable to retain the existing hedgerows and the mature trees along the western boundary. These areas have the potential to be used by birds for nesting and bats for feeding and commuting.

8.0 References

- JNCC, (1990), Handbook for Phase 1 habitat survey - a technique for environmental audit (reprint 2007),
- Wildlife and Countryside Act 1981. H.M.S.O. London.
- The Wild Flower Key - How to identify wild plants, trees and shrubs in Britain and Ireland (Revised Edition 2006)

This survey was carried out by David Leach, an experienced and qualified ecologist who is a member of the Institute of Ecology and Environmental Management who also holds a Natural England bat roost visitor licence

Disclaimer.

All reasonable effort has been made to provide accurate information at the time of the survey. However weather conditions and the timing of surveys can affect the results. Some species or signs of that species will only be visible at certain times of the year e.g. the nesting season for birds is usually between March and September. The absence of certain species or signs of use at the time of a survey does not mean that they are not present at other times of the year and does not imply that a species might not use the site at some time in the future.

Extended Phase 1 Habitat Survey Report.

Appendices

i)



Figure 2. Habitat map of the site with target notes

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ii) Target notes.

1. Area of 4-5m high hedgerow in the garden of the main bungalow. The dominant species is Privet which can provide nectar for insects, ground shelter for reptiles and berries and nesting sites for birds. The hedge may be used by foraging and commuting bats.
2. Glass house areas with large stands of Bramble inside the buildings and some areas along the outer side. There is also some Elder but Bramble is the dominant species.
3. Area of 4-5m high hedge. The dominant species is Hawthorne which may provide berries and nesting sites for birds and shelter for reptiles. The hedge may be used by foraging and commuting bats.
4. Concrete post and wire boundary fence.
5. Concrete post and wire boundary fence with wooden panel fence behind.
6. There is a row of mature Poplar trees which may be used by foraging and commuting bats.

Extended Phase 1 Habitat Survey Report.

iii) Legislation.

Bats

Under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CroW) Act 2000, all bats have legal protection. In addition any structure which shows signs of use by bats either currently or in the past, for shelter or protection, is classed as a bat roost and both the roost and any bats using it are protected by law which makes it an offence to:

- Intentionally or recklessly kill or injure or take any bat.
- Intentionally or recklessly damage or destroy any bat roost and to obstruct access to that roost.
- Intentionally or recklessly to disturb any bat using a structure as a roost.

Protection is also afforded to bats under the Conservation (Natural Habitats & c.) Regulations 1994 (the Habitats Regulations) Amended 2007

Annex IV lists all bats

Regulation 39 makes it an offence to:

- Deliberately kill or capture a bat.
- Deliberately disturb a bat.
- Damage or destroy a resting place or breeding site of any bat.

If any proposed development would result in the otherwise illegal acts above, a licence must be obtained from Natural England prior to any work being carried out. A licence will only be granted if there is no satisfactory alternative and the authorised action will not be detrimental to the maintenance of the population of the species concerned.

Reptiles

The Wildlife and Countryside Act 1981 (as amended) also protects all reptiles from killing, injury and sale.

This is only a simplified description of the legislation. In particular, the offences mentioned here may be absolute, intentional, deliberate or reckless. Note that where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.

Extended Phase 1 Habitat Survey Report.

Reptiles, development and the law

Reptiles are likely to be threatened, and the law potentially breached, by activities such as the following:

- archaeological and geotechnical investigations
- clearing land, installing site offices or digging foundations
- cutting vegetation to a low height
- laying pipelines or installing other services
- driving machinery over sensitive areas
- storing construction materials in sensitive areas
- removing rubble, wood piles and other debris.

The law recognises that it is sometimes necessary to carry out work that may affect reptiles or their habitats. It has two significant concessions:

1. For all species, normally prohibited activities may not be illegal if "the act was the incidental result of a lawful operation and could not reasonably have been avoided." How this defence could apply will depend on the specific circumstances; you should seek legal advice for further details. However, in general English Nature would expect reasonable avoidance to include measures such as altering development layouts to avoid key areas, as well as capture and exclusion of reptiles.

2. For sand lizards and smooth snakes, licences may be issued for some activities (such as disturbance and capture) that would otherwise be prohibited.

Birds.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to damage or destroy the nests of breeding birds (certain pest species are exempt from this legislation)

Extended Phase 1 Habitat Survey Report.

iv)



Eastern site boundary showing scrub growing through the chain link fence, bare ground and Brambles in the glass house.



Scrub (Brambles and Elder) along the side of a glass house.

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Views of cleared areas at north of site showing bare ground and wire and wooden fences.

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Cleared area to west of site showing row of Poplar trees.



Area of mixed tree habitat and area of hard standing near center of site.

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v) Natural England map showing position of the site, the extent of the data search area and the nearest nature reserve.



