Phase 1 Habitat Survey at:

111 London Rd

[90670]

A report for Jemima Jessup

ARBTECH

ENVIRONMENTAL SERVICES

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SUMMARY

Planning permission is being sought for four dwellings.

In July 2010, Arbtech Environmental was instructed to carry out a Phase 1 Habitat Survey of 111 London Road in Cowplain, Waterlooville, Hampshire. This was undertaken to determine the presence of any important habitats or species which might impact on the development.

Ecological data was not requested.

The Phase 1 site visit was made on 18th July 2010, in bright and sunny conditions, with no wind and no cloud.

The site was quite small and consisted of a house with a rear garden which had become overgrown.

The garden had recently undergone vegetation clearance with several large piles of cuttings and garden waste left in the centre of the garden.

A number of scattered trees were present across the site along with mature introduced shrubs.

A number of derelict sheds stood around the boundaries, along with a small greenhouse. In one area around two sheds, there was a large amount of debris including decaying timber panels, large plastic bags and sheets of corrugated metal.

Adjacent to one shed was a small raised pond that had filled with leaf litter. The pond contained a large Common Frog *Rana temporaria*.

Around much of the site there were a variety of hedges.

No rare vascular plants were found.

No evidence of mammals was recorded.

A total of 5 species of birds were observed. These included a number of recently fledged Great Tits *Parus major* that were still being fed by the parent birds.

Since all in-use bird's nests and their contents are protected from damage or destruction, tree and shrub removal should ideally be undertaken outside the period 1st March to 31st August inclusive.

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If this time frame cannot be avoided, a close inspection of trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within 5.0 m of any in-use nest.

No other protected species were discovered, and the trees within the site did not contain features suitable for use by bats as roosting or hibernation places.

Several butterflies were present, including Holly Blue *Celastrina argiolus*, Speckled Wood *Pararga aegeria* and Red Admiral *Vanessa atalanta*.

A Tree Bee *Bombus hypnorum* was also observed around the tall Leyland Cypress hedge.
Further to this, a daytime inspection for bats was undertaken on 17th December 2010 to assess the house and outbuildings for signs of bat occupation. All the internal and external features, especially those associated with the roof and walls of the building were examined.
No signs of bat activity or occupation were found, but the potential for roosting pipistrelles *Pipistrellus sp* and/or other species was considered to be moderate due to the open access into the house, and the garden providing suitable habitat for foraging bats. However, the absence of any evidence of bat activity in and around the building suggests that bats are unlikely to present any issues with this development. Most of the outbuildings in the back garden are quite open and therefore let in a substantial amount of natural light and are susceptible to significant temperature changes.

Bats can take up residence at any time and in the event that a bat is found, work must cease and Natural England or a suitably qualified ecologist should be consulted immediately.

A European Protected Species licence should not be required. However the roof void could not be fully inspected as the access hatch was too high to reach. Therefore as this building provides open access for bats, the roof void should be inspected thoroughly by a suitably qualified ecologist, immediately prior to the demolition of this building.

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1. INTRODUCTION

1.1 Background and survey objectives

Planning permission is being sought for four dwellings.

In July 2010, Arbtech Environmental was instructed to carry out a Phase 1 Habitat Survey. This was undertaken to determine the presence of any important habitats or species on the existing site which might impact on the development.

Further to this, in December of 2010, Arbtech was further instructed undertake a daytime bat inspection of the property. At the same time, the Phase 1 Habitat Survey was updated.

No request was made to purchase ecological data to ascertain what records existed for protected and notable species in the area.

1.2 Site description

The site was quite small and consisted of a two storey detached house and a rear garden which had become overgrown. Much of the garden had recently undergone some vegetation clearance, and it was now dominated by areas of bare ground.

In these areas of bare ground Ivy *Hedera helix* had spread from hedges and begun to carpet the site.

A number of small stands of Bramble *Rubus fruticosus* were present across the garden, growing towards the edges and amongst piles of debris.

There were several scattered mixed trees, including Yew *Taxus baccata*, Horse Chestnut *Aesculus hippocastanum*, Purple Beech *Fagus purpurea*, Sycamore *Acer pseudoplatanus* and False Acacia *Robinia pseudoacacia*. In addition a number of fruit trees were present, with species including Orchard Apple *Malus domestica*, Damson *Prunus domestica insititia* and Cherry Plum *Prunus cerasifera*.

A number of mature introduced shrubs were noted, especially toward the front of the garden. These included Butterfly Bush *Buddleia davidii*, *Hydrangea sp*., and Montbretia *Crocosmia x crocosmiiflora* present close to the house. In addition, *Clematis sp*. had smothered some fruit trees and covered some of the sheds.

The latter stood around the garden along with a small greenhouse. In one area around two sheds, lay a large amount of debris including decaying timber panels, large plastic bags and sheets of corrugated metal.

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Adjacent to one shed was a small raised pond that had filled with leaf litter and was dominated by Common Duckweed *Lemna minor*. The pond contained a large Common Frog.

Elsewhere there was a second, small lined pond which had dried up completely and now supported a thick layer of damp leaf litter. The pond was surrounded by Pendulous Sedge *Carex pendula* which had spread vigorously across the site and could be found growing at the base of trees and hedges.

Along the boundaries there were hedges comprised of several different species. At the front of the property, a robust Garden Privet *Ligustrum ovalifolium* hedge bordered the causeway of London Road. Elsewhere, running down either side of the garden, were hedges comprised of established Leyland Cypress X *Cupressocyparis leylandii*.

The Ordnance Survey Grid Reference of the site is SU 692 112.

1.3 Proposed works

Erection of four dwellings.

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2. METHODOLOGY

2.1 Habitat survey

A Phase 1 Habitat Survey was carried out across the whole of the development site, as well as immediately adjacent areas. It was conducted using standard JNCC (2003) techniques and methodologies.

The site was visited on the 18th July 2010 during bright and sunny conditions, with no cloud or wind.

2.2 Protected species survey

During the habitat survey, the potential for protected and important species was assessed. This included European Protected Species, legally protected species and Local Biodiversity Action Plan Species (and habitats).

2.2.1 Badgers

Badgers *Meles meles* are generally nocturnal and evidence of their presence in an area often comes from field signs rather than sightings of the animals. Useful field signs include:

- *Setts (main, outlying, annex or subsidiary);*
- *Tufts of hair caught on barbed wire fences;*
- *Conspicuous Badger paths;*
- *Footprints;*
- *Latrines – small excavated pits in which droppings are deposited;*
- *'Snuffle holes' – small scrapes where Badgers have searched for insects and plant tubers;*
- *Day nests – bundles of grass and other vegetation where Badgers may sleep above ground;*
- *Scratch marks on trees (usually near the sett).*

Daytime surveys looking for field signs can be carried out at any time of the year, and should be non-intrusive, but nocturnal surveys of setts (if required), are only likely to be effective from April to November, when Badgers are most active, and any cubs present will have emerged.

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2.2.2 Bats

Trees and bushes identified for felling were inspected for any gaps in the bark, patches of exfoliating bark, fissures, splits, cracks and cavities, including woodpecker holes. Where appropriate, cavities and crevices were inspected with a penlight and an endoscope.

In order to fully assess bat occupation of a particular site, English Nature (2004) recommends that diurnal and nocturnal surveys are undertaken. The former provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, or even animals in residence, whilst the latter allows numbers and species to be ascertained or confirmed if signs are indeterminate or absent.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats *Plecotus auritus*, Myotis bats (Natterer's *Myotis nattereri* and Whiskered/Brandt's *M. mystacinus/M. brandtii*), and Lesser Horseshoes *Rhinolophus hipposideros*, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where these butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal surveys can be carried out at any time of the year, but nocturnal surveys should only be undertaken from mid April to late October when bats are out of hibernation and in their summer roosts.

At 111 London Road, a thorough inspection of the house was made on 17thth December 2010, including the exterior and interior walls, roof covering, roof voids, wall plates, gables, eaves, fascias, guttering, windows, window casements, doors and door frames.

Cavities and crevices were inspected with a penlight, whilst 10x42 Nikon binoculars and a Clulite CB2 Torch were used for the inaccessible areas. An endoscope was also used to examine any reachable crevices or cavities that had the potential to hide a roosting bat.

Trees and bushes identified for felling were inspected for any gaps in the bark, patches of exfoliating bark, fissures, splits, cracks and cavities, including woodpecker holes. Where appropriate, cavities and crevices were inspected with a penlight and an endoscope.

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2.2.3 Birds

Most resident and migrant birds breed in the spring and summer, although Woodpigeons *Columba palumbus* and Collared Doves *Streptopelia decaocto* nest throughout the year, and as a result could be on eggs in almost any month. Both these species are also common garden birds, and Woodpigeons in particular, favour trees and tall shrubs in which to nest.

In season, signs of breeding include singing males, display and copulation, birds gathering nesting materials, adults carrying food, calling chicks, etc. In winter none of these activities may be occurring, so a survey for old nests and/or nest holes is the most reliable method of determining the presence or absence of breeding birds.

2.2.4 Great Crested Newts

A survey for Great Crested Newts *Triturus cristatus* may be indicated when background information on distribution suggests that they may be present. More detailed indicators are:

- *Any historical records of Great Crested Newts on the site or in the general area*
- *A pond on or near the site (within around 500 m), even if it holds water only seasonally*
- *Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland or hedgerows within 500 m of a pond*.

There are several field survey methods which can be employed depending on the time of year:

- *Bottle or funnel trapping – adults ideally February to May, with June and July sub-optimal, and August to September for detection of larvae (i.e. young);*
- *Egg search – April to June ideally, with March and July sub-optimal*
- *Torch survey – March to May for adults, with February and June to July sub-optimal, and August to September for larvae;*
- *Netting – March to May for adults, with February and June to July sub-optimal, and August to September for larvae;*
- *Pitfall trapping – March to May and September for adults, with February, June to August and October sub-optimal;*
- *Refuge search – April to September ideally, with March and October sub-optimal.*

The latter two methods involve terrestrial habitats, the others aquatic habitats, for which a minimum of 4 visits per year are recommended, with at least 2 visits between mid-April and mid-May to record peak numbers (English Nature, 2001).

2.2.5 Otters

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Otters *Lutra lutra* are nocturnal and are active all year round. They are large with an adult male reaching up to 1.2 m from nose to tail, and weighing about 10 kg.

Feeding mainly on fish and amphibians, Otters live by undisturbed waters where there is plenty of cover, mostly by freshwater lakes, rivers and quiet small streams as well as some coasts.

An Otter may use over 40 km of river and needs many resting places throughout this range. A female otter will give birth to 1 to 3 cubs in a natal holt, which is often away from the main river and must be completely undisturbed.

Field signs include:

- *Prints in soft mud;*
- *Spraints (faeces);*
- *Holts.*

2.2.6 Reptiles

Reptiles which may be encountered in grassland and scrub habitats include Grass Snake *Natrix natrix*, Adder *Vipera berus*, Slow-worm *Anguis fragilis*, and Common Lizard *Lacerta vivipara*.

During the winter months, from mid-October to late February or early March, they are in hibernation, usually deep in underground hibernacula, such as holes and cracks in the ground, among rocks or the roots of large trees, down animal burrows, or in piles of rubble or stone.

In the spring and summer they live above ground in well-vegetated places, with Grass Snakes often near or in water.

Being cold-blooded all reptiles like to bask, and can often be found in open places.

There are very few signs of reptile presence, but these include:

- *Shedded skin (snakes);*
- *Eggs (but not Common Lizard which gives birth to live young);*

2.2.7 Water Voles

The Water Vole *Arvicola terrestris* is the largest of the British voles. It lives in a series of holes or burrows at the water's edge and can be found along the banks of ditches, streams, rivers, lakes and canals.

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Although Water Voles live in colonies, the breeding females are territorial, each defining their contiguous territory with latrines during the breeding season. This lasts from March to October.

The Water Vole is herbivorous, feeding primarily on the lush aerial stems and leaves of waterside plants. Its activity is normally confined to the area within 2.0 m of the watercourse, the bankside vegetation in this area not only essential for food, but also for cover from predators.

Water Vole activity can be assessed by looking for the following signs:

- *Burrows;*
- *Faeces and latrines;*
- *Feeding stations;*
- *Runs;*
- *Paw prints in areas of soft mud;*
- *Feeding 'lawns';*
- *Predator field signs.*

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3. RESULTS

3.1 Habitat survey

3.1.1 Habitat descriptions

The following habitats were recorded across the site:

Scattered scrub
Scattered, mixed trees
Standing water
Introduced shrub
Intact hedge, species poor
Buildings, etc
Bare ground

These are shown on the Phase 1 Habitat Survey map in Appendix 1, with the target notes in Appendix 2.

Scattered scrub
The grounds contained several small pockets of Bramble scrub that were growing around the edges and amongst garden debris (Figs. 1 & 2).

The garden had recently been cleared of large amounts of scrub which evidently formerly dominated the site.





Figs. 1 & 2 Scattered Bramble scrub

Scattered mixed trees
Across the garden were a number of semi-mature mixed trees (Figs. 3 & 4).

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Species included Yew, Purple Beech, Sycamore, Horse Chestnut, False Acacia and a variety of fruit trees such as Orchard Apple, Damson and Cherry Plum.





Figs. 3 & 4 Scattered trees (mixed)

Standing Water

In the garden there were two small lined ponds. One of the ponds was adjacent to a brick shed and was raised (Fig. 5 – Target Note 1). It measured approximately 1.0 m x 0.5 m and was about 0.4 m deep. The pond was stagnant, filled with leaf litter and was dominated by Common Duckweed.

On close inspection a Common Frog was observed.

The other small plastic lined pond had dried up completely, holding on to a damp layer of leaf litter (Fig. 6).



Fig. 5 Raised pond adjacent to shed



Fig. 6 Dry pond filled with leaf litter

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Introduced shrub

A small number of introduced shrubs remained, predominantly towards the front of the house. Species included mature Butterfly Bush, Hydrangea and Montbretia, with Clematis smothering some of the sheds (Figs. 7 & 8).



Fig. 7 Hydrangea



Fig. 8 Clematis smothering sheds

Intact hedge, species poor

Hedges surrounded much of the site. At the front of the property a Garden Privet hedge provided screening for the building from the road (Fig. 9), whilst down each side of the garden there were Leyland Cypress hedges, with that along the southern boundary being particularly well established and robust (Fig. 10).



Fig. 9 Privet hedge to front of house



Fig. 10 Tall Leyland Cypress hedge

Buildings

The site contained a two storey detached house that was currently uninhabited (Fig. 11).

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In the garden a total of six sheds and a greenhouse were counted (Fig. 12). Of the sheds only one was made from concrete/brick whilst the rest were wooden and all had flat, corrugated metal roofs.



Fig. 11 Two storey detached house



Fig. 12 Garden sheds & greenhouse

Bare ground

Much of the garden was formerly overgrown with Bramble scrub, but after recent vegetation clearance most of it now comprised bare ground (Fig. 13). The resulting garden waste had been piled up in the centre of the site (Fig. 14).



Fig. 13 Bare ground



Fig. 14 Pile of cut vegetation

Ivy had spread from the hedgerows across parts of the garden, forming a carpet between areas of bare ground.

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3.1.2 Flora

The botanical composition of each habitat was typical, and all species recorded were common and widespread.

No invasive weeds were noted.

A list of species observed is presented in Appendix 3.

3.2 Protected species survey

3.2.1 Bats

None of the trees or bushes contained features typically used by bats as roosting or hibernation places. It was not known if the site was used as a foraging or commuting route by bats, although given the surrounding habitat this was thought to be probable.

The house had cracked windows potentially allowing access to bats along with one cracked tile on the roof; however this damage appeared to be recent.

None of the sheds supported features suitable for bats as all had flat roofs and were heavily cobwebbed internally.

Building Survey

The daytime inspection was conducted on 17th December 2010, commencing at 09:30am. The weather conditions during the time of the survey were recorded and are presented in Table 1 below.

Parameter	Value
Temperature (ºC)	-1
Cloud cover (%)	20
Precipitation	None
Wind speed (Beaufort scale)	3

Table 1 Weather conditions during the diurnal survey

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The house

The two-storey detached house had three bedrooms and was uninhabited. It was constructed from bricks with a pitched slate-tiled roof. The roof was supported by a timber A-frame and beams. The front elevation of the house consisted of red bricks (Fig. 15).



Fig. 15 Front eastern elevation

The pitched tile roof was in moderate condition, and the main ridge appeared to be intact (Figs. 16-17). In places the tiles were not tightly overlapping, and gaps were visible (Fig. 18). Some of the tiles were also missing on the south-facing side of the roof (Fig. 19).



Fig. 16 South-facing roof top



Fig. 17 North-facing roof top

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Fig. 18 Showing gaps under roof tiles at the base of the chimney



Fig. 19 Showing missing roof tile

The ends of the roof on both gables of the house were completely sealed, with no gaps or cavities evident. The gable apexes were finished with timber soffits, these were intact and tightly fitting against the walls (Figs. 20 & 21).



Fig. 20 Eastern gable end



Fig. 21 Western gable end

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The wooden soffits under the roof overhang on both sides of the house appeared to be intact and tightly fitting against the walls (Figs. 22 & 23).



Fig. 22 Soffits on northern elevation



Fig. 23 Soffits on southern elevation

The brickwork was generally sound throughout, whilst all the window casements and doorframes were tightly fitting. However many of the windows were open or broken, providing access points for bats.

Internally there was one roof void. The slate tiles were not lined so any gaps in the tiles could potentially lead straight into the roof void (Fig. 24). The roof void could not be fully inspected as the access hatch was too high to reach (Fig. 25). The roof was inspected with a torch from the ground, so the amount of the roof void visible was greatly restricted (Fig. 26). The roof void appeared to be clean with no cobwebs, however the base of the roof void could not be inspected. No light penetration could be seen from the ground.

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Fig. 24 Roof void



Fig. 25 Access hatch into loft



Fig. 26 Roof void inspected through access hatch from the landing

The main access points for bats were through the open or broken windows. There is open access into the utility room at the rear of the property through a large open window (Fig. 27). There is also a hole in the wall of the utility room (Fig. 28). In the cupboard under the stairs there is an open window (Fig. 29), and there are open/broken windows in the front and back bedrooms upstairs (Figs. 30 & 31). The hatch to the loft is open, providing open access from the landing into the roof void. The missing roof tiles and gaps between some of the tiles may provide access holes for bats directly into the roof void.

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Fig. 27 Open window in utility room



Fig. 28 Hole in wall of utility room



Fig. 29 Open window in cupboard



Fig. 30 Broken window in front bedroom

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Fig. 31 Open window in back bedroom

Despite all the access points no signs of bat activity were found anywhere around the outside of the building. No evidence of bat occupation was found throughout the building. It is unlikely that bats are present in the roof void as there were no signs of bats using any of the access points to enter or exit the building. In addition to this the roof void does not appear to be suitable for bats as the roof is not lined leaving the slate tiles bare. However as this building provides open access for bats, the roof void should be inspected thoroughly by a suitably qualified ecologist, immediately prior to the demolition of this building.

Outbuildings

There were 8 outbuildings in the garden to the rear of the house. None of these buildings were suitable for bats as most had flat roofs and were open to the elements. No evidence of bat occupation was found throughout these buildings.

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Building 1 – An old timber chicken house with a flat roof made from corrugated metal and bitumen (Fig. 32).



Fig. 32 Building 1

Building 2 – Timber shed with flat corrugated metal roof (Fig. 33).



Fig. 33 Building 2

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Building 3 – Brick built shed with flat concrete roof (Fig. 34).



Fig. 34 Building 3

Building 4 – Old greenhouse with timber frame and base and glass roof (Fig. 35).



Fig. 35 Building 4

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Building 5 – Timber shed with flat corrugated plastic roof (Fig. 36).



Fig. 36 Building 5

Building 6 – Shed with a timber frame and walls and a flat roof made from corrugated pre-fabricated materials (Fig. 37).



Fig. 37 Building 6

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Building 7 – A timber shed with walls constructed from breeze blocks and a flat roof made from corrugated plastic (Fig. 38).



Fig. 38 Building 7

Building 8 – Old shed with concrete breeze block walls and a flat corrugated metal roof (Fig. 39). The building is covered in thick-stemmed Ivy *Hedera spp.* which bats have been known to roost in (Fig. 40). The building itself is not suitable for bats.



Fig. 39 Building 8



Fig. 40 Outside of Building 8

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3.2.2 Badgers

No signs of Badger activity were recorded.

3.2.3 Otters

No evidence of Otter presence was recorded.

3.2.4 Water Voles

No evidence of Water Vole presence was recorded.

3.2.5 Birds

A total of 5 species of birds were observed in or near the survey area during the site visit, all of which are Species of Low Conservation Concern (RSPB Green List).

None of the birds were found to be nesting on the site but a clutch of recently fledged Great Tit were being fed at the ground by parent birds.

A full list of species noted is given in Appendix 4.

3.2.6 Reptiles

No reptiles were seen during the site visit, but the piles of debris and vegetation appeared to be suitable as a refugia and hibernacula for Slow-worms and possibly Grass Snakes.

3.2.7 Great Crested Newts

All pieces of loose material that provided refugia were checked, but no Great Crested Newts were found.

The ponds were deemed to have no potential for supporting Great Crested Newts.

3.2.8 Invertebrates

No important or uncommon invertebrates were observed. However three species of butterflies were also recorded, including Holly Blue, Speckled Woods and Red Admiral.

A single Tree Bee was observed flying in and out of the tall Leyland Cypress hedge.

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3.2.9 Other notable species

No other protected species were observed during the site visit.

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4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Site evaluation

The survey area was considered to be of limited ecological importance, with no rare or particularly unusual species noted.

It was potentially of value to commoner amphibians however, these no doubt using the debris piles as refugia.

The scattered trees were generally semi-mature and as such did not support features attractive to roosting bats.

The dense Leyland Cypress hedge and the derelict sheds however provided potential nesting habitat for birds, although no nests were recorded during the survey.

The two lined ponds were of little value to amphibians as one was completely dry and filled with leaf litter, whilst the other was also filled with leaf litter, raised and contained various items of litter such as beer cans and tins of paint. However a large, Common Frog was disturbed in this raised pond.

The small pockets of scattered Bramble scrub had limited value to wildlife as they were restricted in extent following recent vegetation clearance.

The house possessed some features that could allow access to bats; these included broken windows and a broken/missing roof tile. However, the damage appeared to be recent acts of vandalism and thus the features were not established access points into the building.

4.2 Bats

Bats tend to be seasonal visitors to properties, and are not usually in occupation all year round. They normally form maternity colonies during May or June and then leave for adjacent trees and/or woodland during July or August once the young bats are able to fly and become independent. Here they will spend the winter months in hibernation before returning to the house or barn the following spring.

Male bats generally live alone and have a number of favoured roosts. During the summer they visit each of these for a few days at a time, before moving to their chosen hibernation site in mid-late October.

Different species have different habits, but this seasonal movement is common to all.

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Bats choose their roosts carefully. During the summer they look for sites which are warmed by the sun, and as a result are most often found on the south and western side of buildings.

Pipistrelles, our smallest and commonest bats, prefer to roost in very confined spaces around the outside of buildings, typical places being behind hanging tiles, weather boarding, soffit, barge and eave boarding, between roof felt and roof tiles or in cavity walls.

As such evidence of pipistrelle roosting can be very difficult to find, so potential for roosting was also assessed.

This was thought to be moderate at 111 London Road, due to the open access into the building and the garden, providing suitable habitat for foraging bats. However, the absence of any evidence of bat activity in and around the building suggests that bats are unlikely to present any issues with this development. Most of the outbuildings in the back garden are quite open and therefore let in a substantial amount of natural light and are susceptible to significant temperature changes.

No evidence of occupation or activity was found on site. Although every effort has been made to locate the presence of bats, bats can be difficult to detect as they can tuck themselves into small crevices. Bats can take up residence at any time and in the event that a bat is found, work must cease and Natural England or a suitably qualified ecologist should be consulted immediately.

Taking all the evidence into account, bats are unlikely to present any issues with this development. A European Protected Species licence should not be required. However the roof void could not be fully inspected as the access hatch was too high to reach. Therefore as this building provides open access for bats, the roof void should be inspected thoroughly by a suitably qualified ecologist, immediately prior to the demolition of this building.

4.3 Possible impacts of proposed work & recommendations

Given the low species diversity, there will be little ecological impact of the development on the site.

Despite no evidence of nesting birds at the time of the survey, the site contained large amounts of suitable nesting habitat.

All in-use bird's nests and their contents are protected from damage or destruction. In order to avoid impacting upon nesting birds, any tree or shrub removal should be undertaken outside the period March to August inclusive. If this time frame cannot be

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avoided, a close inspection of trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within 5.0 m of any in-use nest.

At all times care should be taken when stripping the vegetation and soil so that any amphibians, and potentially reptiles and/or small mammals which might be present are not caught up in the earthworks. If any are encountered they should be carefully captured and released nearby, or allowed to move out of the area on their own accord.

Open trenches could potentially trap wildlife, especially if these fill up with water. Escape routes should therefore be provided if trenches cannot be infilled immediately. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.

When the rubbish and debris has to be removed, it should be lifted carefully by hand, as amphibians could be present.

4.4 Further surveys

During the diurnal bat survey of the buildings, the roof void in the house could not be fully inspected as the access hatch was too high to reach. Therefore as this building provides open access for bats, the roof void should be inspected thoroughly by a suitably qualified ecologist, immediately prior to the demolition of this building.

If the tree and shrub removal can be timed appropriately to avoid the bird nesting season (considered to be March to August inclusive), then no further surveys are considered necessary.

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6. APPENDICES

Appendix 1: Phase 1 Habitat Survey Map

Appendix 2: Target Notes

Appendix 3: Plant species list

Appendix 4: Bird species list

Appendix 5: Relevant legislation

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Appendix 1: Phase 1 Habitat Survey Map (not to scale)



Legend

Survey boundary	Standing water	Buildings, etc
Scattered scrub	Introduced shrub	Bare ground
Scattered broadleaved trees	Intact hedge, species poor	Target note

Appendix 2: Target Notes

Target Number	Notes
1	Common Frog in raised pond
2	Tree Bee *Bombus hypnorum* in Leyland Cypress hedge

Appendix 3: Plant species list

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Latin name	Common name
Taxus baccata	Yew
Robinia pseudoacacia	False Acacia
Fagus purpurea	Purple Beech
Acer pseudoplatanus	Sycamore
Aesculus hippocastanum	Horse Chestnut
Prunus domestica	Cherry Plum
Malus domestica	Orchard Apple
Prunus domestica insititia	Damson
X Cupressocyparis leylandii	Leyland Cypress
Rubus fruticosus	Bramble
Hedera helix	Ivy
Carex pendula	Pendulous Sedge
Ligustrum ovalifolium	Garden Privet
Buddleia davidii	Butterfly Bush
Crocosmia x crocosmiiflora	Montbretia
Hydrangea sp	Hydrangea
Clematis sp	Clematis
Lemna minor	Common Duckweed

Appendix 4: Bird species list

Common name	Latin name
Woodpigeon	*Columba palumbus*
Robin	*Erithacus rubecula*
Blackbird	*Turdus merula*
Great Tit	*Parus major*
Chaffinch	*Fringilla coelebs*

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Appendix 5: Relevant legislation

5.1 – Birds

In Britain, all wild birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981. There are penalties for:

- *Killing, injuring or capturing them, or attempting any of these*
- *Taking or damaging the nest whilst in use*
- *Taking or destroying the eggs*

5.2 – Reptiles

All reptiles are protected under part of sub-section 9(1) and all of sub-section 9(5) of the Wildlife and Countryside Act 1981. These prohibit the intentional killing and injuring and trade (i.e. sale, barter, exchange, transporting for sale and advertising to sell or to buy). It is not an offence to possess these animals. This level of protection applies to the four widespread species of reptile, namely Common Lizard, Slow Worm, Grass Snake and Adder.

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