

28 Kingsway

Aldwick, Bognor Regis, West Sussex

- Preliminary Ecological Appraisal Survey Report
- Bat Roost Assessment Survey

Planning Issue

Prepared by	CO
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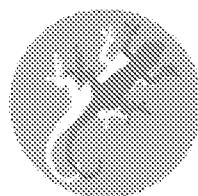
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L I Z A R D

Landscape Design and Ecology

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned to undertake a preliminary ecological appraisal and protected species assessment of the land proposed for development at 28 Kingsway, Aldwick, Bognor Regis (*Grid Reference: SZ 909 983 – hereafter referred to as 'the site'*). A preliminary ecological appraisal (PEA) was undertaken of the site on 03rd July 2017 to appraise the existing ecological resource within the site and the surrounding area.

The ecological survey conducted during July 2017 has identified habitats of amenity grassland; buildings; hard standing and introduced shrub with scattered trees and fencing to the site boundaries. Development proposals centre around the existing swimming pool and lawn area to the west of the existing dwelling house on site. Habitats within these areas included amenity grassland, hard / bare ground, and native hedgerow. The amenity grassland was homogenous in species composition, being dominated by perennial rye-grass (*Lolium perenne*) and fescue (*Festuca sp.*) with few forbs present. Habitats within the development construction zone can be considered as being of '*low ecological value*'.

The buildings on site have been assessed as offering '*negligible*' bat roost potential. Both buildings were extensively examined; no evidence of bats was located within either building. Any potential access points were examined with an endoscope and/or high-powered torch; no signs of bats gaining access into the building were noted. Although the fabric of the garage is conducive to supporting a bat roost this is negated by the high light levels within the building and the poor surrounding habitat. The potential presence of bats on site is not considered to pose an ecological constraint to development.

There is 1 no. pond adjacent the site boundary and 1 no. swimming pool within the development zone. Potential of the pond is negated by the presence of fish and poor surrounding terrestrial habitat. The likely presence of great crested newts (GCN) on site is considered to be '*negligible*'.

No further detailed phase 2 surveys with regard to protected species are considered necessary for this site.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned to undertake a preliminary ecological appraisal and protected species assessment of the land proposed for development at 28 Kingsway, Aldwick, Bognor Regis (*Grid Reference: SZ 909 983 – hereafter referred to as 'the site'*).
- 1.2 A preliminary ecological appraisal (*PEA*) was undertaken of the site on 03rd July 2017 to appraise the existing ecological resource within the site and the surrounding area. The PEA was comprised of a baseline survey conforming broadly to the JNCC Ecology Phase 1 Habitat Survey protocol to identify the existing habitats. In addition a protected species assessment was undertaken to identify the potential for European and nationally protected species within and adjacent to the site.
- 1.3 The field survey data and analysis contained within this report was undertaken and prepared by Catherine O'Reilly (*BSc; Project Ecologist; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The development site is located due south of Kingsway, on a site currently utilised as a residential garden with swimming pool, located towards the southern edge of Aldwick, Bognor Regis. The site is approximately 5.00 metres above sea level and measures approximately 0.1 hectares. The site is comprised in the majority by amenity grassland with outbuildings, as would be expected on a site of this nature. Borders of the site are composed of fencing with hedging and scattered mature trees. The site boundaries are edged by residential areas to all aspects.
- 1.5 Soils on site are described as limey soil with naturally high groundwater. There are no areas of *ancient woodland* or woodland highlighted on the *National Inventory of Woodland and Trees* within the development area or immediately adjacent to the site area. There are no public footpaths running through the site and permission has been sought to access the area.

Surrounding Landscape

- 1.6 The surrounding landscape is urban, dominated by residential properties for at least 500.00 metres to the north, east and west, while land opens to the coast approximately 200.00 metres to the south of the site. Beyond this to the north and west the land extends to a mix of arable and pastoral farmland. The nearest area of woodland listed on the *National Inventory of Woodland and Trees* is located 3.1 kilometres north-east, while a 2.57 hectare area of *ancient woodland* is located 4.7 kilometres south-west of the site.

Development Proposals

- 1.7 The development proposals consist of construction of new residential buildings on the site following the demolition of the existing outbuildings. This survey has been undertaken on the assumption that development proposals would incorporate a large percentage of the available site area, to include associated residential properties, hard standing and amenity / garden areas.

2.0 SCOPE OF THE SURVEY

- 2.1 The aim of the preliminary ecological appraisal survey has been:
- *To identify and display the main habitat types and plant communities;*
 - *To provide a species list for the major habitats;*
 - *To identify habitats with potential for protected species;*
 - *To provide recommendations for surveys of protected species and / or ecological enhancement / compensation.*
- 2.2 The aims of the day-time bat roost assessment survey and protected species assessment were;
- *To identify the potential for roosting bats;*
 - *Identify areas where future detailed survey effort would be required and should be focused;*
 - *To establish whether other habitat features for different species groups exist to warrant further investigation.*
- 2.3 This report establishes the potential ecological resource within the site and outlines where any ecological constraints may occur.

3.0 METHODOLOGY

- 3.1 A preliminary ecological appraisal survey was undertaken on 03rd July 2017 and the site subjected to an ecology phase 1 habitat survey using guidelines set out in *The Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit (JNCC, 2003)*. This has resulted in a Site Habitat Plan (*Figure No. 01*) and Species List (*Table No. 03*)
- 3.2 Habitats within the site were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. A summary description of the habitat within the site following the ecology phase 1 habitat survey methodology is presented in *Section 4.0*.
- 3.3 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of survey and hence overlooked. These are accepted constraints associated with the standard ecology phase 1 habitat survey methodology.
- 3.4 Habitats within and immediately adjacent to the site were assessed for their potential for uncommon and protected fauna including mammals, birds, reptiles and amphibians. This involved identifying features which may be used by protected species; potential foraging areas and other signs of use. Stones, dead wood and rubble were turned over and any dug holes studied for recent activity by mammals. Water bodies were recorded wherever possible within 500.00 metres of the proposed development.
- 3.5 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix No. 01 – Site Photographs*. Recommendations for further investigation and survey are made in the following report.

Day-Time Bat Roost Assessment Survey - Buildings

3.6 An internal day-time bat roost assessment survey of the existing building on site was undertaken on 03rd July 2017 by Catherine O'Reilly (*NE Licence No. 20460*). The bat surveyor also undertook an internal and external examination of the existing garage building. The bat surveyor assessed the existing buildings visually and searched for evidence such as;

- *Staining beneath or around a hole caused by natural oils in bat fur;*
- *Bat droppings beneath a hole, roost or resting area;*
- *Bat droppings and / or insect remains beneath a feeding area;*
- *Audible squeaking from within a hole;*
- *Insects (especially flies) around a hole;*
- *Dead bats.*

3.7 An external investigation assessed the fabric of all the buildings on site to see if there were access points readily available for bats to utilise.

Day-Time Bat Roost Assessment Survey – Existing Trees

3.8 Existing trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:

- *Woodpecker Holes;*
- *Knot Holes;*
- *Tear-outs;*
- *Flush Cuts;*
- *Double Leaders;*
- *Dense Ivy Covering.*

3.9 Once features had been assessed, trees were then categorised in accordance with *The Bat Conservation Trust's Good Survey Guidelines*:

'High': Trees with multiple highly suitable features capable of supporting large numbers of bats;

'Moderate': Trees with definite bat roost potential supporting fewer features than high potential trees;

'Low': Trees with no obvious features but of a size and age conducive to supporting a bat roost.

4.0 RESULTS

4.1 Desk Study – Background information

Designated Sites and Habitats

- 4.1.1 The following section outlines the ecological context of the development site, describing any designated nature conservation sites in the vicinity of the development site. The following designated sites and habitats are not necessarily representative of the existing site's ecology, but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

Statutory Protected Sites

- 4.1.2 Statutory Protected Sites within 2.0 kilometres of the site are listed below:

Table No. 01 – Statutory Protected Sites

<i>Name</i>	<i>Reason for Designation</i>	<i>Distance</i>
Bognor Reef SSSI	Designated mainly for its geological interest but also contains large areas of <i>vegetated shingle</i> , a <i>UK Priority Habitat</i> .	200m S
Pagham Harbour	This designated area comprises extensive saltmarsh and tidal mudflats rich in invertebrates and algae of national importance for breeding, overwintering and migrating wildfowl and wading birds.	2.4km SW

- 4.1.3 The site is located within the *Impact Risk Zone (IRZ)* of *Rake Hangar* however development proposals do not meet the criteria which would trigger consultation with *Natural England* to assess the impacts on nearby protected sites.

Non-Statutory Protected Sites

- 4.1.4 Development proposals do not seek to remove or alter any non-statutory protected site. There are no SNCI's located within 2.0km of the site. The impact upon surrounding SNCI's is considered to be negligible.

UK Priority Habitats

- 4.1.6 Within 2.0 kilometres of the site there are *UK Priority Habitats* of *vegetated shingle, sand dunes* and *deciduous orchard*. The small scale of the residential development; the intervening distance; and the discrepancy between the ecology habitats strongly suggest the development proposals would not impact on these *UK Priority Habitats*.

UK Priority Species

- 4.1.7 The *UK Priority* and other protected species relevant within West Sussex and recorded within 2.0 km of the site include Common Pipistrelle bats (*Pipistrellus pipistrellus*); Brown Long-eared bat (*Plecotus auritus*); Noctule bats (*Nyctalus noctula*); and Soprano Pipistrelle bat (*Pipistrellus pygmaeus*).
- 4.1.8 All species of bat and their roosts are protected under *Regulation 41 of The Conservation of Habitats and Species Regulations 2010* and *Section 9 of The Wildlife and Countryside Act 1981*. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (*whether live or dead*), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

4.2 Field Survey

- 4.2.1 The following habitats and features were recorded within the development site and the extended survey area. The general site character has been described, along with a brief description of the habitat's physical characteristics. These are shown on the *Site Habitat Plan - Figure No. 1*;

4.2.2 Habitats within the development site area include;

- *Hard standing;*
- *Existing buildings;*
- *Amenity grassland;*
- *Tree / hedge lines.*

Site Description (Refer to Appendix No. 1 – Site Photographs)

4.2.3 The existing site is currently utilised as a residential garden with the habitats present on site reflecting this. The area is dominated by amenity grassland with introduced shrubs and tree line to the site edges (*Refer to Photograph No. 01 & 02 – Appendix No. 01*).

4.2.4 Composition of the sward is typical of amenity grassland, with forbs present including abundant black medic (*Medicago lupulina*) and self-heal (*Prunella vulgaris*) with frequent white clover (*Trifolium repens*) interspersed with occasional yarrow (*Achillea millefolium*), creeping buttercup (*Ranunculus repens*) and chickweed (*Stellaria media*). The sward is maintained to a short length (c. 5 cm) with very little structural diversity.

4.2.5 Recently planted rose beds form the southern section of the site while a greenhouse lies to the south-western corner.

4.2.6 The southern boundary is delineated by closedboard fencing, and the western boundary is largely formed of cherry laurel hedging. The northern boundary is formed of fencing and tree line with species including sycamore (*Acer pseudoplatanus*), oak (*Quercus robur*), cypress (*Cupressocyparis x leylandii*) and holly (*Ilex aquifolium*). The eastern boundary of the site is edged by the existing residential property and further area of garden.

4.2.7 A large swimming pool is present to the eastern section of the site adjoined by a pool-house building to the north. A small ornamental pond measuring approximately 6 m² is located just beyond the site boundary to the east.

Day-Time Bat Roost Assessment – External

- 4.2.8 The pool house (**Building No. 01**) is of a single-storey brick construction with clay tile roof. The roof is in good condition with no areas of slipped or broken tiles noted. All window ledges and external walls were inspected for signs of bats; no evidence was noted.
- 4.2.9 A single-storey detached garage (**Building No. 02**), clad in timber, is located towards the north-eastern corner of the site. Much of the cladding has lifted potentially allowing access beneath however these areas were inspected with an endoscope and found to show no evidence of bat usage such as smoothing of the wood or grease marking. No bat droppings were identified either stuck to the external walls of the building or the vegetation beneath.
- 4.2.10 The building has a clay tile roof, in poor condition, with many slipped / broken tiles present. Closer inspection of this area using ladders and a high-powered torch revealed that the majority of crevices were cobweb covered. The roof surface and guttering were examined for the presence of bat droppings, no evidence was located.

Day-Time Bat Roost Assessment – Internal

- 4.2.11 **Building No. 01** has a single loft space formed of roof trusses backed by bitumen roofing membrane. Height to the ridge was c. 1.2 metres with a small water tank to the centre of the void. No evidence of bats such as droppings, urine splashes or grease marks were noted within the roof void.
- 4.2.12 **Building No. 02** is utilised for storage and is light internally due to the presence of 2 no. windows. No evidence of bats was noted anywhere within the building.

Day-Time Bat Roost Assessment – Trees

- 4.2.15 Trees on site were inspected and found to offer '*negligible*' bat roost potential. All trees were in good condition at the time of the survey and offered no extensive areas of cracks, splits or dead wood which could be exploited by bats.

5.0 EVALUATION

- 5.1 The ecological survey conducted during July 2017 has identified habitats of amenity grassland; buildings; hard standing and introduced shrub with scattered trees and fencing to the site boundaries.
- 5.2 Development proposals centre around the existing swimming pool and lawned area to the west of the existing dwelling house on site. Habitats within these areas included amenity grassland, hard / bare ground and native hedgerow. The amenity grassland was homogenous in species composition, being dominated by perennial rye-grass (*Lolium perenne*) and fescue (*Festuca sp.*) with few forbs present. Habitats within the development construction zone can be considered as being of '*low ecological value*'.
- 5.3 The pond located to the east of the site is considered to offer poor habitat suitability due to its small size, presence of fish, isolation and poor surrounding habitat. The pond is therefore considered to offer '*negligible*' potential to support a population of great crested newt (*Triturus cristatus*).
- 5.4 The swimming pool on site is considered to offer very poor habitat suitability for a population of great crested newts. Although populations of newts have been recorded in disused swimming pools, the pool on site appeared well maintained and contained no debris which could be used as an egg laying medium. No further detailed phase 2 surveys with regard to amphibians are necessary for this site.
- 5.5 The lack of structural diversity and vegetative cover within the site habitats reduce the potential of the site to support protected species of reptile to '*negligible*' status. The presence of protected species of reptiles is not therefore a material consideration.

- 5.6 The buildings on site have been assessed as offering '*negligible*' bat roost potential. Both buildings were extensively examined; no evidence of bats were located within either building. Any potential access points were examined with an endoscope and/or high-powered torch; no signs of ingress/egress into the buildings were noted. Although the fabric of the garage is conducive to supporting a bat roost this is negated by the high light levels within the building and the poor surrounding habitat. The presence of cobwebs throughout the roof void further suggests that bats are not present. The potential presence of bats on site is not considered to pose an ecological constraint to development.
- 5.7 The scattered trees, shrubs and hedgerows on site provide ample nesting sites for breeding birds. It is an offence under *The Wildlife and Countryside Act 1981 (as amended)* to damage or destroy the active nest of any bird. To avoid contravening this act it is advised that any vegetation clearance takes place outside the breeding season (*March-August inclusive*) or following through inspection.

6.0 PROTECTED SPECIES – CONCLUSIONS AND RECOMMENDATIONS

Reptiles

- 6.1 There are no areas on site which could offer suitable reptile habitat. No further survey work is required.

Amphibians

- 6.2 There is 1 no. pond adjacent the site boundary and 1 no. swimming pool within the development zone. Potential of the pond is negated by the presence of fish and poor surrounding terrestrial habitat. The likely presence of great crested newts (*GCN*) on site is considered to be '*negligible*'. No further detailed phase 2 surveys with regard to amphibians are necessary for this site.

Badger

- 6.3 The site was extensively searched for badger sett or field signs. Nothing to suggest presence of badgers on site was noted. No further survey work with regard to badgers is required on site.

Bats

- 6.4 The buildings on site have been assessed as offering 'negligible' bat roost potential. Both buildings were extensively examined; no evidence of bats was located within either building. The potential presence of bats on site is not considered to pose an ecological constraint to development.

Birds

- 6.5 The scattered trees, shrubs, and hedgerows on site provide ample nesting opportunities for breeding birds. It is an offence under *The Wildlife and Countryside Act 1981 (as amended)* to damage or destroy the active nest of any bird. To avoid contravening this act it is advised that any vegetation clearance takes place outside the core breeding season (*March-July inclusive*) or following inspection by a Suitably Qualified Ecologist.

7.0 ECOLOGICAL ENHANCEMENTS

7.1 The design of the proposed development should consider ecological enhancements for the benefit of wildlife in line with *The National Planning Policy Framework* and *Local Planning Policy*. Recommendations for ecological enhancements that could be considered as part of development proposals could include:

- *The use of flowering shrubs as listed within the RHS 'Perfect for Pollinators' plant list within any planting beds to provide year-round interest for invertebrates;*
- *The provision of nesting boxes for a variety of bird species e.g. house sparrow, starling, swallow and house martin.*
- *Use of native seed-bearing trees and shrubs (where possible) to provide a foraging resource for local birds. Examples include hawthorn, holly, guelder rose, dogwood and spindle;*
- *Installation of bat boxes to mature trees surrounding the site. Suitable boxes include 2F Schwegler bat box and 1FF Schwegler bat box;*
- *Seeding areas of amenity grassland with a flowering lawn mix such as 'Emorsgate Seeds EL 1';*
- *Incorporation of log piles and compost heaps or the installation of 'bug hotels' where space for log piles / compost heaps is limited;*
- *Closedboard fencing used within the scheme should incorporate a 12 x 12 cm gap to the base of the fence to facilitate movement of hedgehogs around the site. Holes should be signed with 'Hedgehog Highway' signs to prevent their closure (refer to <https://ptes.org/shop/hedgehog-highways-signs/hedgehog-highway-labels/>). 'Hogitat' hedgehog habitat to be provided within areas of dense shrub planting.*

8.0 REFERENCES

JNCC: Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit; (2003)

Collins J (ed): Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed.) The Bat Conservation Trust (2016)

Mitchell-Jones and McLeish: Bat Workers Manual; JNCC, 3rd Edition (2004)

Streeter, D.: The Most Complete Guide to the Flowers of Britain and Ireland; Harper Collins, London (2010)

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Table No. 03 – Species Lists for Site Habitats
28 Kingsway, Aldwick, Bognor Regis

Amenity Grassland

Common Name	Scientific Name	DAFOR
Black Medic	<i>Medicago lupulina</i>	A
Common Daisy	<i>Bellis perennis</i>	O
Common Nettle	<i>Urtica dioica</i>	R
Common Yarrow	<i>Achillea millefolium</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Dandelion	<i>Taraxacum officinale</i>	O
Fescue	<i>Festuca spp.</i>	LD
Field Speedwell	<i>Veronica persica</i>	R
Moss	<i>Moss sp.</i>	LD
Perennial Ryegrass	<i>Lolium perenne</i>	D
Self-heal	<i>Prunella Vulgaris</i>	A
White Clover	<i>Trifolium repens</i>	A
Yorkshire Fog	<i>Holcus lanatus</i>	LF

Hedge / Tree Lines

Common Name	Scientific Name	DAFOR
Bay Laurel	<i>Laurus nobilis</i>	R
Cherry Laurel	<i>Prunus laurocerasus</i>	LD
Field Maple	<i>Acer campestre</i>	O
Holly	<i>Ilex aquifolium</i>	O
Leyland Cypress	<i>Cupressocyparis x leylandii</i>	LD
Oak	<i>Quercus robur</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R

DAFOR SCALE

D – Dominant, A – Abundant, F – Frequent, O – Occasional, R – Rare, L – Locally

Appendix No. 1 –Site Photographs

28 KINGSWAY
ALDWICK, BOGNOR REGIS
PRELIMINARY ECOLOGICAL APPRAISAL AND BAT ROOST ASSESSMENT
LLD1227.28Kingsway.PEA.Rev00.03.07.17

APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 1 - View across the development site towards the south.



Photograph No. 2 - View across the development site to the north.

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ALDWICK, BOGNOR REGIS
PRELIMINARY ECOLOGICAL APPRAISAL SURVEY

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 3 - Building No. 02: No evidence of bats was recorded anywhere within this building.



Photograph No. 4 - Internal view of Building No. 02: No evidence of bats was recorded anywhere within this building.

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 5 - External view of Building No. 01; the building is considered to offer 'negligible' bat roost suitability.



Photograph No. 6 - Internal view of Building No. 01: No evidence of bat usage was recorded within this building.

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