



ACB ARCHITECTURAL SERVICES

Land at Highcroft Close, Bognor Regis West Sussex

- Preliminary Ecological Appraisal Survey

Planning Issue

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Contents

	Page No.
SUMMARY	01
1.0 Introduction	02
2.0 Scope	03
3.0 Methodology	03
4.0 Results	04
5.0 Evaluation	07
6.0 Protected Species Conclusions and Recommendations	09
7.0 Ecological Enhancements	11
8.0 References	12

FIGURES

Figure No. 1 – Site Habitat Plan

TABLES

Table No. 01 – Statutory Protected Sites

Table No. 02 – Target Notes

Table No. 03 – Species List

APPENDICES

Appendix No. 1 – Preliminary Ecological Appraisal Survey– Site Photographs



The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LN

SUMMARY

Lizard Landscape Design and Ecology has been commissioned by ACB Architectural Services to provide a preliminary ecological appraisal survey of land at Highcroft Close, Bognor Regis, West Sussex (*Grid Reference: SU 942 001 – hereafter referred to as 'the site'*).

A site visit was undertaken on 25th April 2017 to appraise the existing ecological resource within the site and the surrounding area. The site was small in size and located within an urban area. It comprised habitats of amenity grass, tall ruderal vegetation, fence, wall and bramble scrub.

The tall ruderal vegetation provided suitable habitat for reptiles and 10 no. slow worms were found under refugia during the site visit. As the site is limited in size and adjacent to an allotment site, it is recommended that habitat manipulation is used to displace the reptiles from the site to the allotments.

The site is adjacent to suitable commuting and foraging habitat for bats and there is a 'low' potential for bats to use the site for commuting and foraging. No further surveys for bats are recommended. It is recommended that a sympathetic lighting strategy is utilised both during and post construction.

Nothing indicative of a badger sett or any foraging signs were noted on the site and therefore no further surveys regarding badgers are required. It is possible that badgers and other mammals (such as foxes and hedgehogs) may move across the site and it is recommended that any excavations are covered or fitted with ramps to allow any mammals to escape.

No evidence of nesting birds was found at the time of the survey. The overhanging trees and shrubs are suitable for nesting birds and any vegetation clearance should be undertaken outside of the bird nesting season (*Nesting season: March – August inclusive*) of following careful inspection by a Suitably Qualified Ecologist.

There are records of hedgehogs in the wider area and hedgehogs may utilise the site for foraging and commuting. It is therefore recommended that hedgehog tunnels are provided to maintain connectivity with the wider landscape.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by ACB Architectural Services to provide a preliminary ecological appraisal survey of land at Highcroft Close, Bognor Regis, West Sussex. (*Grid Reference: SU 942 001 – hereafter referred to as 'the site'*).
- 1.2 A preliminary ecological appraisal survey (*PEA*) was undertaken of the site on 25th April 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 were undertaken and prepared by Louise Mandry (*BSc (Hons), MRes, GradCIEEM*); *Project Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by Joe Jackson; (*Principal; Landscape Architect BA (Hons) LA DipLA CMLI; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The development site is a roughly triangular shaped plot of vacant land set within Highcroft Close cul-de-sac with allotment gardens to the southern boundary. The site is roughly level and was dominated by amenity grass and tall ruderal vegetation with a picket fence separating it from the allotment gardens. Some trees were overhanging the southern boundary and a brick wall was present at the western boundary.
- 1.5 The site is approximately 2.0 metres (m) above sea level and measures approximately 0.02 hectares (ha). Soils on site are described as freely draining slightly acid loamy soils.

Surrounding Landscape

- 1.6 The surrounding landscape is dominated by residential buildings with some recreational grounds and pasture to the east. Scrub and hedge lines run between the pasture and the Hotham Park woodland to the south west. A railway line runs 270 m to the north west and a ditch runs 140 m to the east. A retail park and caravan park lie further to the north and there is a golf course approximately 800 m to the north east.
- 1.7 The nearest area of woodland listed on *The National Forest Inventory* is an 8.0 ha plot located 550 m south of the proposed development site.

Development Proposals

- 1.8 The development proposals consist of the construction of a new bungalow with associated garden and hard standing areas within the residential environment.

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 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 was undertaken on 25th April 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*), Target Notes (*Table No. 02*) and a 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 rare 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.

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

Name	Grid Ref	Reason for Designation	Distance
Felpham SSSI	SZ 948 992	One of only three sites in the country containing Palaeocene aged flora.	1 km S
Bognor Reef SSSI	SZ 912 982	A stretch of foreshore with an extensive area of vegetated shingle which is a rare habitat in Britain and also of geological interest.	1.5 km SW
The Brooks Local Nature Reserve	SU 934 015	A 19.1 ha area of meadow, narrow reedbeds and ditches, permanent and temporary ponds and an extensive newly planted floodplain woodland.	1.3 km N

4.1.3 The site is located within the *Impact Risk Zone (IRZ)* of *Bognor Reef SSSI*. The development proposal does not meet the requirements which would require consultation with *Natural England* to assess the impacts on nearby protected sites.

Non-Statutory Protected Sites

4.1.4 *Sites of Nature Conservation Importance (SNCI's)* are non-statutory designations given to areas of high, local conservation value. Despite being non-statutory, *SNCIs* are still recognised by local planning authorities in their policies and plans. No *SNCIs* were identified within 2.0 km of the site.

UK Priority Habitats

4.1.5 Within 2.0 kilometres of the site, there are *UK Priority Habitats* of *coastal and floodplain grazing marsh, good quality semi-improved grassland, intertidal substrate foreshore (sand and gravel) and deciduous woodland*. Development proposals do not seek to alter or remove any areas of priority habitat.

UK Priority Species

- 4.1.6 The site is relatively small and located within the urban environment. The potential for priority species to be present on site or utilising the site is likely to be limited to widespread species such as bats, reptiles and badgers. There are records of hedgehogs in the surrounding area.

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 in *Figure No. 01*. *Table No. 02* contains Target Notes and Species Lists for Habitat Parcels are listed in *Table No. 03*.

- 4.2.2 Habitats within and adjacent to the development site area include:

- *Amenity Grass;*
- *Bare Ground;*
- *Bramble Scrub;*
- *Fence;*
- *Tall Ruderal;*
- *Wall.*

Site Description (Refer to Appendix No. 01 – Site Photographs)

- 4.2.3 The site was limited in extent and dominated by amenity grass and tall ruderal vegetation. A fence was present to the southern border and a wall to the western border.
- 4.2.4 Amenity grass was present in the northern half of the site. A 1.0 m strip along the northern boundary had a short sward and had been subject to management. The southern section of the amenity grass had a longer sward of approximately 15 centimetres (cm). Grass species such as perennial rye grass (*Lolium perenne*) dominated with some forbs noted including frequent dandelion (*Taraxacum agg.*) and daisy (*Bellis perennis*).

- 4.2.5 The southern half of the site was dominated by tall ruderal vegetation. Some evidence of herbicide application was noted along the boundary with the amenity grass. There were some piles of grass and hedge clippings, a discarded compost bag and two sheets of plyboard present within the tall ruderal vegetation. Ten slow worms (*Anguis fragilis*) were found under the plyboard sheets and discarded compost bag.
- 4.2.6 The tall ruderal vegetation was dominated by common nettle (*Urtica dioica*) with frequent field bindweed (*Convolvulus arvensis*) and goosegrass (*Galium aparine*).
- 4.2.7 At the eastern end of the site a small area of bramble (*Rubus fruticosus*) scrub was present next to a privet (*Ligustrum vulgare*) shrub and hawthorn (*Crataegus monogyna*) tree which were leaning into the site from the adjacent allotments. An area of bare ground was present in the south-east corner where the hawthorn tree canopy was dense.
- 4.2.8 A 1m high picket-style fence ran along the southern boundary separating the site from allotments. Hedge bindweed was recorded growing on it with occasional bramble.
- 4.2.9 A 1.5 m brick wall formed the western boundary. This was largely free of vegetation with some ivy (*Hedera helix*) and hedge bindweed recorded at the southern end.

5.0 EVALUATION

- 5.1 This survey has identified habitats of amenity grass, bare ground, bramble scrub, fence, tall ruderal vegetation and wall. Habitats on site are common within the wider landscape and all species recorded were typical of the habitat type with no rare or unusual species recorded.

- 5.2 The tall ruderal vegetation provides 'good' habitat for reptiles. Ten slow worms were recorded under refugia during the site visit. All UK reptile species are protected against killing / injuring under *The Wildlife and Countryside Act 1981 (as amended)*.
- 5.3 The site is limited in size and the adjacent allotments are likely to support reptile species. It is therefore recommended that habitat manipulation is used to displace the reptiles from the site before construction.
- 5.4 The vegetation will initially be cut to a sward height of 15cm (if needed), followed by a further vegetation cut to ground level. This should be carried out starting from the north of the site and moving towards the allotments under the supervision of a suitably qualified ecologist. Any potential refugia will be removed at this stage. Following the vegetation management, a destructive search under the supervision of a suitably qualified ecologist should be carried out. This will consist of removing the top layer of vegetation and soil using an excavator with a toothed bucket. Any reptiles found during these stages will be relocated to the allotment site.
- 5.5 The amenity grassland and tall ruderal vegetation provide some foraging for bat species. However, the site is limited in size and is therefore considered to have a 'low' potential for foraging and commuting bats. The adjacent allotments are connected to the wider landscape and provide foraging and commuting potential for bats. Therefore, no further surveys are recommended for bats. It is recommended that a sympathetic lighting strategy should be employed during construction and post construction.
- 5.6 Nothing indicative of a badger sett nor any foraging signs were noted within the site area. No further surveys regarding badgers are required. Badgers and other mammals may use the site for foraging or commuting and it is therefore recommended that any excavations are covered overnight or mammal ramps area installed to allow any animals to escape.

- 5.7 The amenity grassland and tall ruderal vegetation provide suitable foraging and commuting habitat for hedgehogs. Hedgehogs have been recorded in the wider landscape and the site is directly connected to allotments and recreational grassland to the south. Although no field signs (e.g. droppings) were found at the time of the survey, it is possible that they utilise the site for commuting and foraging. Hedgehogs are a widespread species but their numbers are declining. They have been a UK Biodiversity Action Plan (BAP) species since 2007.
- 5.8 The trees overhanging the site may provide suitable habitat for nesting birds, although no evidence of nesting birds was found at the time of the survey. All birds' nests, their eggs and chicks are protected against damage and destruction under *The Wildlife and Countryside Act 1981 (as amended)*. Trees and shrubs within the site provide optimal nesting habitat for a range of bird species. Any clearance of suitable vegetation should be undertaken outside the nesting season (*Nesting season: March - August inclusive*) or following careful inspection by a Suitably Qualified Ecologist.

6.0 PROTECTED SPECIES CONCLUSIONS AND RECOMMENDATIONS

Bats

- 6.1 The site is limited in extent and was assessed as having a 'low' potential for commuting and foraging bats. No further surveys for bats are required. It is recommended that a sympathetic lighting scheme is utilised during and post construction.

Badgers

- 6.2 No holes indicative of a badger sett or foraging signs were noted on site during the survey. Should any signs of badgers be found during construction all works should cease while the advice of a suitability qualified ecologist is sought. Badgers may be found in the wider landscape and it is possible that they and other mammals (such as hedgehogs and foxes) may commute or forage within the site.

- 6.3 Badgers are protected under *The Protection of Badgers Act 1992* and it is therefore recommended that during construction works trenches should be covered or ramps installed to allow badgers and other mammals to escape.

Reptiles

- 6.4 Suitable habitat for reptiles was present on site and ten slow worms were found during the site visit. It is recommended that habitat manipulation is used to displace the reptiles to the adjacent allotments.

Nesting Birds

- 6.5 Although no evidence was found at the time of the survey, the site does provide suitable habitat for nesting birds. Trees and shrubs within the site provide optimal nesting habitat for a range of bird species. Any clearance of suitable vegetation should be undertaken outside the nesting season (*Nesting season: March - August inclusive*) or following careful inspection by a Suitably Qualified Ecologist.

Hedgehogs

- 6.6 No field signs of hedgehogs were recorded during the site visit, however, it is possible that they utilise the site for foraging and commuting. Ecological enhancements such as the provision of hedgehog tunnels to maintain connectivity to the wider landscape and are recommended to benefit this species.

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 hedgehog tunnels to maintain connectivity to the wider landscape;*
- *The incorporation of reptile habitat (such as wild flower lawns with a longer sward length) within the garden area;*
- *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, in particular Sussex Biodiversity Action Plan (BAP) species such as House Sparrow and Starling;*
- *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 buildings within the scheme. Suitable boxes include 2F Schwegler bat box; 1FF Schwegler bat box while integrated boxes could include 1FR Bat Tube and Habitat Bat Box.*
- *Use of a sympathetic lighting scheme across the site, with lighting angled down and away from surrounding trees / hedges;*
- *Installation of bug boxes such as: NHBS Insect Tower to provide additional habitat for invertebrates on site.*

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)

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001): Great Crested Newt Conservation Handbook, Froglife, Halesworth.

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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LLD1156 Highcroft Close, Bognor Regis, West Sussex

Table No. 02 – Target Notes (TN) for Ecology Phase 1 Habitat Survey and Protected Species Assessment

TN	Feature	Description	Protected Species	Potential
<i>TN 01</i>	Refugia	Two sheets of plyboard providing a refugia for reptiles.	<i>Reptiles</i>	<i>'High'</i>
<i>TN 02</i>	Refugia	A discarded black compost bag providing potential refugia for reptiles.	<i>Reptiles</i>	<i>'High'</i>
<i>TN03</i>	Refugia	A pile of lawn and hedge cuttings providing potential refugia for reptiles.	<i>Reptiles</i>	<i>'High'</i>

Land at Highcroft Close, Bognor Regis, West Sussex

Table No. 03 – Species List - Preliminary Ecological Appraisal Survey

Wall

Common Name	Scientific Name	DAFOR
Ivy	<i>Hedera helix</i>	D
Hedge Bindweed	<i>Calystegia sepium</i>	A

Amenity Grass

Common Name	Scientific Name	DAFOR
Bittercress sp.	<i>Cardamine sp.</i>	O
Bulbous buttercup	<i>Ranunculus bulbosus</i>	O
Goosegrass	<i>Galium aparine</i>	O
Lesser Celendine	<i>Ficaria verna</i>	O
Dandelion	<i>Taraxacum officinalis</i>	F
Daisy	<i>Bellis perennis</i>	F
Creeeping Cinquefoil	<i>Potentilla reptans</i>	O
Field Bindweed	<i>Convolvulus arvensis</i>	O
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	O
Yarrow	<i>Achillea millefolium</i>	A
White Clover	<i>Trifolium repens</i>	F
Buttercup sp.	<i>Ranunculus sp.</i>	A
Thistle sp.	<i>Cirsium sp.</i>	R
Meadow Foxtail	<i>Alopecurus pratensis</i>	O
Perennial Rye-Grass	<i>Lolium perenne</i>	D
Hogweed	<i>Heracleum sphondylium</i>	R
Red Dead-nettle	<i>Lamium purpureum</i>	R
Cow Parsley	<i>Anthriscus sylvestris</i>	R
Daffodil	<i>Narcissus sp.</i>	R

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

Land at Highcroft Close, Bognor Regis, West Sussex

Table No. 03 – Species List - Preliminary Ecological Appraisal Survey

Continued

Tall Ruderal

<i>Common Name</i>	<i>Scientific Name</i>	<i>DAFOR</i>
Common Nettle	<i>Urtica dioica</i>	D
Field Bindweed	<i>Convolvulus arvensis</i>	F
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	O
Dandelion	<i>Taraxacum officinalis</i>	F
Goosegrass	<i>Galium aparine</i>	F
Couch Grass	<i>Elymus repens</i>	R
Lords-and-ladies	<i>Arum maculatum</i>	O
Groundsel	<i>Senecio vulgaris</i>	O
Bramble	<i>Rubus fruticosus</i>	R
White Bryony	<i>Rubus fruticosus</i>	R
Grass sp.	<i>Bryonia dioica</i>	R
Ivy	<i>Hedera helix</i>	O
Spanish Bluebell	<i>Hyacinthoides hispanica</i>	R

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

Appendix No. 1 – Preliminary Ecological Appraisal – Site Photographs

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LAND AT HIGHCROFT CLOSE, BOGNOR REGIS
WEST SUSSEX
LLD1156.PEA.Rev02

APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 1 - Illustrating the entire site area looking west with amenity grass, tall ruderal vegetation, fence and wall.



Photograph No. 2 - Illustrating bramble scub and overhanging privet and hawthorn in the south east corner.

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PRELIMINARY ECOLOGICAL APPRAISAL SURVEY

LLD1156.PEA.Rev00

APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 3 - Illustrating 2 no. sheets of plywood (TN01) present on the west of the site providing refugia for reptiles.



Photograph No. 4 - Protected reptile species of slow worms found under the plywood.

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LAND AT HIGHCROFT CLOSE, BOGNOR REGIS, WEST SUSSEX
PRELIMINARY ECOLOGICAL APPRAISAL SURVEY

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 5 - Pile of grass clippings recorded on site.