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[redacted]

Reptile Mitigation Statement

Land at Upper Bognor Road, Bognor Regis, West Sussex

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Report Summary

1. The Ecology Co-op has been commissioned by The University of Chichester to outline necessary mitigation for a proposed development on land at Upper Bognor Road, Bognor Regis, where there is suitable habitat for reptiles.

2. The original Mitigation Statement issued in December 2019 had assumed a population of reptiles and recommended a reptile translocation strategy. A reptile survey has since taken place between April and May 2021 subsequent to a condition of planning approval and confirmed a likely absence of reptiles at the site. Given the amount of suitable habitat, a two phase strim, and destructive search, has been recommended instead of a translocation strategy.

3. The two phased strim and destructive search must be overseen by a suitably qualified and experienced ecologist so that any wildlife found can be safely moved into retained habitats.

4. An area immediately east of the site has been retained for biodiversity enhancements. This was also subject to a reptile survey which confirmed a likely absence of reptiles. The retained area will include a wildflower meadow, one hibernacula and native hedgerow planting which will be beneficial for a variety of wildlife including bats, amphibians, invertebrates and birds.

5. Site staff must be briefed prior to the commencement of construction on the importance of contacting an ecologist in the event that any reptiles or other wildlife are identified within the construction zone.

6. Post construction management has been detailed within Section 3 of this report.

Document Control

Issue No	Author	Reviewer	Issue Date	Additions/alterations	Notes
Original	JB	SL	05/12/19	N/A	
V2	HW	RW	08/06/21	Amendments to mitigation following a reptile survey	

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1 INTRODUCTION

1.1 Purpose of the Report

This document has been produced to demonstrate how the proposed residential development upon land at Upper Bognor Road in Bognor Regis, West Sussex will minimise its impact upon the site whilst providing biodiversity enhancements. The report outlines all mitigation and compensation measures that are designed to ensure that valuable habitats are either protected, replaced or enhanced further to a proposal to construct two new residential dwellings with hard and soft landscaping.

All of the prescribed mitigation measures described within this document will be issued to relevant works contractors to ensure that they are carried out in full. Implementation of this will be overseen by a suitably qualified and experienced ecologist.

1.2 Background

The Ecology Co-op has been commissioned to outline mitigation for land at Upper Bognor Road, Bognor Regis, West Sussex. The Ecology Co-op undertook an Ecological Assessment[1] at the site on the 5th November 2019 which identified the need for a reptile presence/absence survey. The original version of this Reptile Mitigation Statement was issued in December 2019 which assumed reptiles exist within the construction zone and recommended a translocation strategy. A reptile survey was conducted across April and May 2021 subsequent to a condition of planning approval and confirmed a likely absence of reptiles.

The site is located in an urban area within the Bognor Regis Campus of the University of Chichester on Upper Bognor Road, Bognor Regis, West Sussex. The central grid reference for the site is SZ943 995.

This is a small site approximately 0.09 hectares comprising predominantly dense bramble and nettle scrub habitat, ruderal vegetation, scattered trees, saplings, amenity grassland, hard-standing and piles of rubbish, bricks and rubble scattered throughout the site, see Figure 1 and Photograph 1.

A small parcel of land lies to the immediate east of the site and has been retained for biodiversity enhancements. This area encloses a newly created SuDs pond and rough grassland which is connected to the construction zone through a gap in the brick wall. This area was also subject to a reptile survey, which confirmed a likely absence of reptiles, see Figure 1 and Photograph's 2 and 3.

The proposed development includes the construction of two new residential dwellings with associated hard and soft landscaping (Figure 2).

[1] Burkitt, J. (2019) Ecological Assessment, Land at Upper Bognor Road, Bognor Regis, West Sussex. The Ecology Co-op 19th November 2019. Doc Ref P3457.

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Figure 1. An aerial image showing the location of the site. The development site is outlined in red, whilst the area outlined in blue has been retained for biodiversity enhancements. Images produced courtesy of Google maps (Map data ©2021 Google).

Figure 2. The proposed layout outlined in light blue within the land at Upper Bognor Road, Bognor Regis.

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Photograph 1. The dense scrub, ruderal habitat and numerous rubble/brick piles within the site.

Photograph 2. The retained biodiversity enhancement site containing the SuDs pond and rough grassland to the immediate east of the development site.

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Photograph 3. The gap in the wall along the eastern boundary of the proposed construction zone which is connected to the retained biodiversity enhancement site.

1.3 Legislation

Reptiles

Slow worms, adder *Vipera berus*, grass snakes *Natrix helvetica* and common lizards are protected against intentional killing or injuring and trade under part of subsection 9 (1) and all of subsection 9 (5) of the Wildlife and Countryside Act 1981. Destruction of known habitats whilst reptiles are present may therefore lead to an offence.

2 PRE-CONSTRUCTION MITIGATION MEASURES

2.1 Staged Vegetation Management and 'Destructive Search'

Due to the dense nature of the vegetation within the site, it is possible that low numbers of reptiles are present but could not be detected during surveys. Habitat manipulation involving a two-phased strim supervised by a suitably qualified and experienced ecologist will be used to reduce the habitat without inflicting injury to reptiles.

Temperatures must be between 9 and 18 degrees and in the absence of rain. The first pass will be a height of approximately 10-15cm, which removes the bulk of material without any risk of harm to reptiles (or other wildlife) and encourages them to move out of the area.

A second pass is then made which will remove the vegetation to bellow 5cm. All of the arisings must be collected and removed to prevent them from attracting wildlife.

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Both passes will be supervised by a suitably qualified and experienced ecologist so that any reptiles found can be removed and placed in the biodiversity enhancement area. If the works are planned to take place during nesting bird season, (typically 1st March to 31st August) a hand search for active nests must precede the two-phased strim.

Finally, a destructive search of all remaining features with the potential to support reptiles will be undertaken. All remaining rubble piles, debris, brick piles, rubbish piles or other features with suitable refuges will be carefully and methodically removed and destroyed using an excavator with a toothed bucket, with a suitably qualified and experienced ecologist on standby to move any exposed animals to the retained biodiversity enhancement site.

3 ENHANCEMENTS

3.1 Hibernacula Creation

The retained area to the east will be enhanced to provide biodiversity enhancements for amphibians and insects. This will include the creation of a single hibernacula (see Figure 3). These can be built using logs and branches, piled on top of each other, with grass cuttings, earth and turf laid over the top to provide insulation (see Figure 10). The proposed location is indicated in Figure 4.

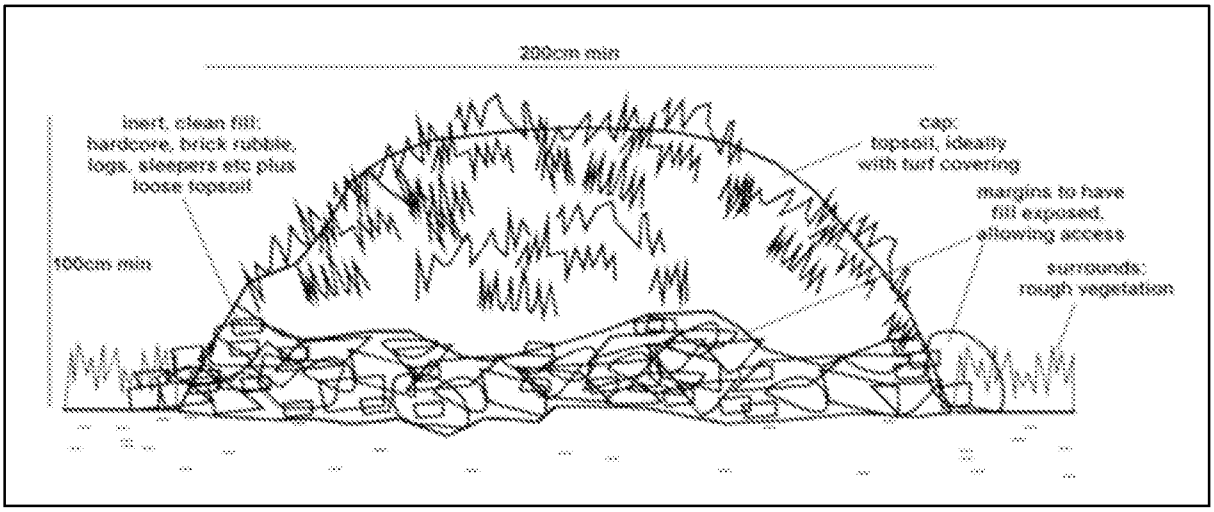

Figure 3. An example of a suitable design for an artificial hibernaculum.[2]

3.2 Native Hedgerow Planting

To increase the value and connectivity of the site for foraging and nesting birds and amphibians, a new native hedgerow will be created along the southern and western boundary of the biodiversity area. The hedgerows will be no less than 20 metres long and planted at a density of five trees per linear metre. The hedge will comprise hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, blackthorn *Prunus spinosa*, pedunculate oak *Quercus robur*, dogwood *Cornus sanguinea*, guelder rose *Viburnum oplus*, and field maple *Acer campestre*. The hedgerow must only be cut in February each year and to a height of 2 metres as this will ensure the fruiting bodies upon the hedge will remain available for wintering birds. The recommended locations for the hedgerows are shown in Figure 4 below.

[2] English Nature (2001) Great Crested Newt Guidelines. English Nature, Peterborough.

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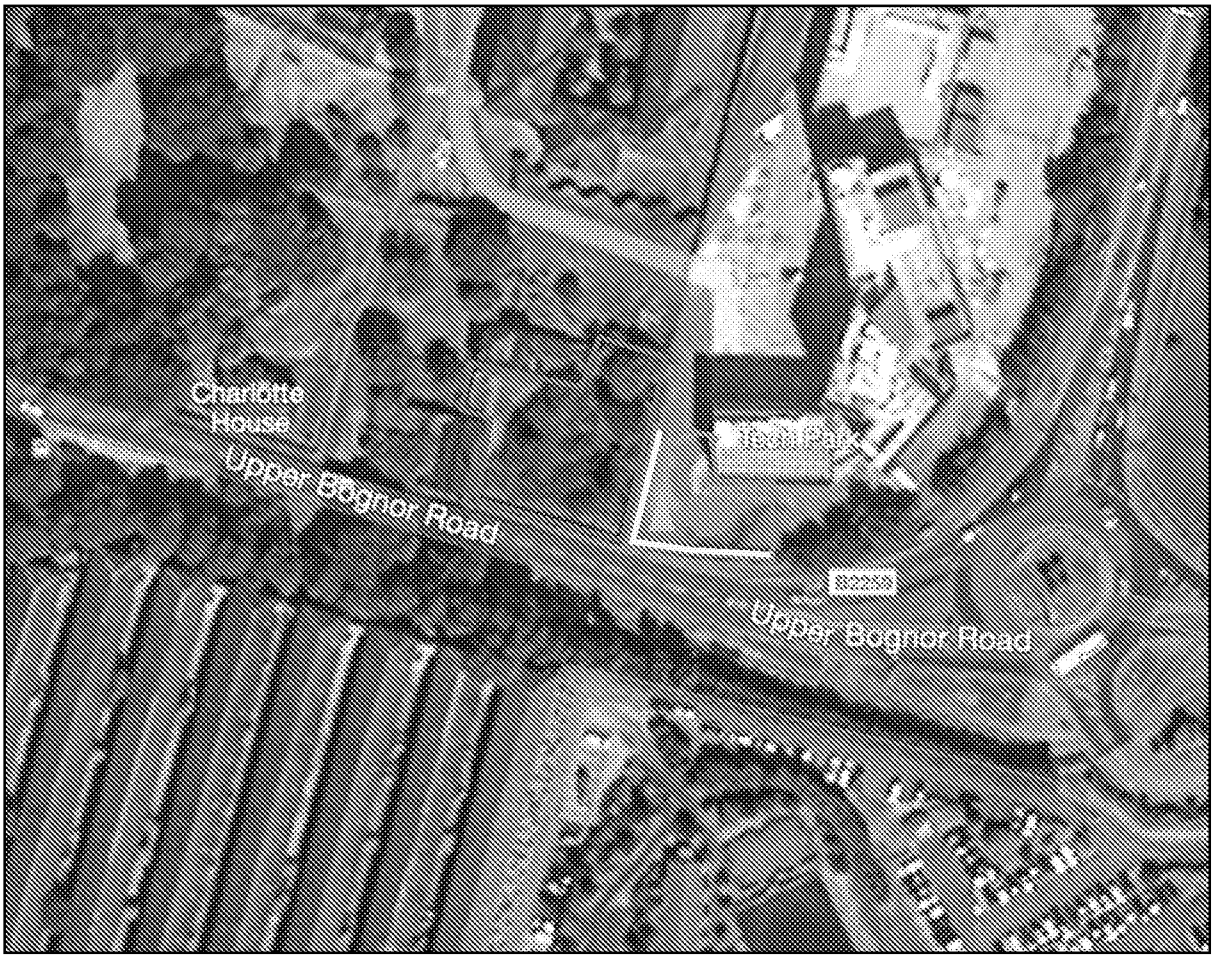

Figure 4. Recommended locations for native hedgerow planting and hibernacula within the biodiversity area which is outlined in green. The orange triangle represents the approximate location of a single hibernacula within the biodiversity enhancement area and the yellow line indicates the new native hedgerow planting. The SuDS pond is shaded in blue.

3.3 Wildflower Meadow Creation

A wildflower meadow will be established in the biodiversity area. This will increase the value of this area as foraging habitat for bats, birds and amphibians as well as pollinating insects.

To establish this as a wildflower area, a process of light rotavating and seeding should be employed with good ground preparation essential to the success of the wildflower meadow. The sowing process is best undertaken between late August and the end of September during mild and wet weather best suited to seedling establishment or during mid-March to mid-May when the ground has sufficient moisture and there is very little risk of frosts. The rotavating process is to create an area of largely bare ground to allow the wildflower seed mix to establish.

Immediately following rotavating, a suitable seed mixture containing not less than 20 wildflower and grass species should be sown across the ground at a density of four grams per square metre. Cutting the grass sward very short prior to rotavating the ground will also help to prepare a more suitable growing base. The species included must all be of native British origin. A recommended seed mixture

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is EM5 - Meadow mixture for loamy soils, which is available from Emorsgate seeds (www.wildseed.co.uk). Table 1 below details the composition of this mixture.

Table 1. EM5 meadow mixture for loamy soils from Emorsgate Seeds.

Wildflowers		
%	**Latin name**	**Common name**
0.5	*Achillea millefolium*	Yarrow
3	*Centaurea nigra*	Common Knapweed
1	*Daucus carota*	Wild Carrot
2.5	*Galium verum*	Lady's Bedstraw
0.3	*Geranium pratense*	Meadow Cranesbill
1.2	*Knautia arvensis*	Field Scabious
0.5	*Lathyrus pratensis*	Meadow Vetchling
0.4	*Leontodon hispidus*	Rough Hawkbit
0.5	*Leucanthemum vulgare*	Oxeye Daisy
0.5	*Lotus corniculatus*	Birdsfoot Trefoil
1	*Malva moschata*	Musk Mallow
0.5	*Plantago lanceolata*	Ribwort Plantain
0.5	*Plantago media*	Hoary Plantain
1	*Primula veris*	Cowslip
1	*Prunella vulgaris*	Selfheal
2	*Ranunculus acris*	Meadow Buttercup
1	*Ranunculus bulbosus*	Bulbous Buttercup
1.5	*Rhinanthus minor*	Yellow Rattle
1	*Rumex acetosa*	Common Sorrel
0.1	*Trifolium pratense*	Wild Red Clover
Grasses		
8	*Agrostis capillaris*	Common Bent
3	*Anthoxanthum odoratum*	Sweet Vernal-grass (w)
3	*Briza media*	Quaking Grass (w)
32	*Cynosurus cristatus*	Crested Dogstail
10	*Festuca ovina*	Sheep's Fescue
20	*Festuca rubra*	Slender-creeping Red-fescue
3	*Phleum bertolonii*	Smaller Cat's-tail
1	*Trisetum flavescens*	Yellow Oat-grass (w)

4 POST CONSTRUCTION MANAGEMENT

4.1 Management Plan Operations

It is important that all of the above prescribed mitigation and enhancement measures are maintained in perpetuity.

4.2 Wildflower Meadow Management and Native Hedgerow Management

As part of on-going management, the sward will receive low-intensity management, that allows some wildflowers to thrive, but also ensures no small mammals or amphibians are at risk. Under this management it is recommended that one half of the grassland area is cut to a height of no less than 5cm between mid-August and late September with all cuttings collected and composted, with the other half of the grassland cut and gathered in the spring (mid-March to late-April). This management will ensure that some taller grassland cover is always available for wildlife.

The hedge should be trimmed during late winter so that fruit and nut bearing trees continue to provide birds and mammals through the winter. The ideal time for this is late January/early February just before the start of the nesting bird season.

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op.

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