



Hallam Land Management

Bognor Regis Golf Club, Bognor Regis

APPENDIX 8.7 - REPTILE REPORT

December 2021

FPCR Environment and Design Ltd

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 01 [REDACTED]

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1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Hallam Land Management to present the results of reptile surveys completed on the site at Bognor Regis Golf Course, West Sussex (central OS grid reference SU 95019 01235).
- 1.2 The scope and objectives of the report are to:
- present the findings of the reptile surveys undertaken in 2016 and 2021;
 - assess the relative importance of the survey area for reptiles;
 - review the site proposals and provide recommendations for mitigation, compensation and enhancement.

Site Location and Context

- 1.3 The Site covers an area of approximately 40ha and currently comprises the existing Bognor Regis Golf Course and associated club house and car parking. Vehicular and pedestrian access is provided from Golf Links Road. The golf course comprises fairways, fairway trees with occasional drainage ditches. A practice green is also located close to the club house.
- 1.4 The Site is located to the north of Felpham and Bognor Regis, and is adjacent to the north-western edge of the built-up area of Felpham. It is bounded to the west by Lidsey Rife, beyond which is the LEC Airfield, the railway line and areas of commercial development. To the north is the A259. To the east is the existing residential environs of Felpham and Downview Primary School. To the south are open fields extending to the B2259 and further afield Felpham.

Site Proposals

- 1.5 Outline planning application with all matters reserved, except means of access, for the erection of up to 480 new homes (C3), the formation of a new means of access onto Golf Links Road, together with the creation of new surface water drainage, new landscaping and habitat creation, ground works and other infrastructure. The retention and re-purposing of the retained club house (F2(b)).

2.0 LEGISLATION AND POLICY

- 2.1 All common reptile species, including common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis* and grass snake *Natrix helvetica*, are partially protected under Sections 9(1) and 9(5) of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation protects these animals from:
- intentional killing and injury;
 - selling, offering for sale, possessing or transporting for the purpose of sale or publishing advertisements to buy or sell a protected species.
- 2.2 This partial protection does not directly protect the habitat of these reptile species. Where these animals are present on land that is to be affected by development, the implications of legislation are that providing that killing can reasonably be avoided then an operation is legal. Guidance provided by Natural England¹ and the Amphibian and Reptile Groups of the UK² recommends that this should be achieved by ensuring that:
- the animals are protected from injury or killing;
 - mitigation is provided to maintain the conservation status of the species;
 - population monitoring is carried out subsequent to operations.
- 2.3 All common reptiles are also included on the list of habitats and species which are of principal importance for the conservation of biodiversity in England as required under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. The S41 list is used to guide decision-makers, including local planning authorities, in implementing their duty under section 40 of the Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

¹ English Nature (2004) Reptiles: guidelines for developers - <http://publications.naturalengland.org.uk/publication/76006?category=31018> [Accessed 18.10.2021]

² Maintaining best practise in reptile mitigation/translocation programmes: Herpetofauna Groups of Britain and Ireland. http://www.aruk.org/index.php?option=com_docman&task=cat_view&gid=13&Itemid=17 [Accessed 18.10.2021]

3.0 METHODOLOGY

Desk Study

- 3.1 In order to compile existing baseline information, relevant ecological information was requested from both statutory and non-statutory nature conservation organisations including:
- Sussex Biological Records Centre (SxBRC)
 - Multi Agency Geographic Information for the Countryside (MAGIC)³
- 3.2 When handling data, species records were filtered to those from the previous ten years. Older records were reviewed but only included where they were considered relevant to the site assessment.

Reptile Survey

- 3.3 Strategic reptile presence/absence surveys were undertaken within the survey area following current guidance^{4,5,6}. These were completed between September-October 2016 and September-October 2021 (*Table 1*).
- 3.4 Artificial refugia (0.5m² sections of roofing felt) were placed throughout the survey area at a density of 5 refugia per hectare of suitable reptile habitat. These habitats included the field boundaries with pockets of tall ruderal vegetation, hedgerows, scrub around the ponds and scattered log piles. Refugia locations are shown in *Figures 1 and 2*.
- 3.5 In both 2016 and 2021, refugia were left to bed in for a period of seven days before seven survey visits were undertaken by experienced FPCR ecologists in suitable weather conditions. These include air temperatures between 9-19°C in the absence of strong winds and heavy rain.
- 3.6 Each survey visit included the following:
- Checking all refugia within the survey area at least once;
 - Approaching refugia carefully from downwind and without casting a shadow so as not to disturb basking animals;
 - Lifting and replacing refugia with care to check for the presence of reptiles underneath;
 - Checking other suitable basking areas and resting places within the survey area, such as log piles.

³ MAGIC - <https://magic.defra.gov.uk/> [Accessed 20.09.2021]

⁴ Gent, T. & Gibson, S. (eds) (2003) *Herpetofauna Workers' Manual*. JNCC, Peterborough.

⁵ Froglife (2016) *Surveying for reptiles: Tips, techniques, and skills to help you survey for reptiles*. Froglife, Peterborough.

⁶ Natural England & Defra (2015) *Reptiles: surveys and mitigation for development and projects* - <https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences> [Accessed 18.10.2021]

Table 1: Reptile Survey Weather Conditions in 2016 and 2021

2016 Surveys		2021 Surveys	
Date & Time	Weather	Date & Time	Weather
8 th Sept 07:15	17°C, sunny, light breeze	10 th Sept 07:40	17°C, overcast, light drizzle, rain earlier in day, light breeze
26 th Sept 10:20	15°C, sunny intervals, 50-60% cloud cover, light breeze	20 th Sept 09:05	15°C, sunny intervals, dry, 30-40% cloud cover, moderate breeze
28 th Sept 11:30	16°C, sunny, 30-40% cloud cover, light breeze	24 th Sept 09:00	14°C, sunny intervals, dry, light air/ breeze
5 th Oct 11:00	13°C, sunny, light breeze	27 th Sept 10:35	15°C, sunny, dry, 30-40% cloud cover, moderate breeze,
12 th Oct 11:00	12°C, sunny, 30-40% cloud cover, strong breeze	5 th Oct 09:00	15°C, sunny, rain earlier in day, moderate breeze
18 th Oct 12:24	14°C, sunny, 30-40% cloud cover, light breeze	8 th Oct 10:00	16°C, overcast, light drizzle, light breeze
25 th Oct 11:00	13°C, sunny, dry, rain earlier in day	11 th Oct 10:00	11°C, sunny intervals, dry, 10-20% cloud cover, light breeze

Population Assessment

- 3.7 Reptile populations were assessed in accordance with the Key Reptile Site Register criteria⁷. This system classifies populations of individual reptile species into three population categories according to importance (Table 2). These categories are based on the peak number of adults observed during individual surveys.

Table 2: Reptile Population Categories

Species	Low Population (no. of individuals)	Good Population (no. of individuals)	Exceptional Population (no. of individuals)
Adder <i>Vipera berus</i>	<5	5-10	>10
Grass Snake <i>Natrix helvetica</i>	<5	5-10	>10
Common Lizard <i>Zootoca vivipara</i>	<5	5-20	>20
Slow-worm <i>Anguis fragilis</i>	<5	5-20	>20

⁷ Froglife (1999) *Reptile survey: an introduction to planning, conducting, and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.

4.0 RESULTS

Desk Study (*Figure 1*)

- 4.1 The most recent reptile records within 2km of the survey area were provided by SxBRC in 2021. Several records of reptiles, including grass snake, common lizard, and slow-worm were provided within the last 10 years, the majority of which were located approximately 0.23km south-west of the site. These are summarised in *Table 3*.
- 4.2 Older records for common lizard, slow-worm, and grass snake were also returned, dated 1996, 2002, and 1993, respectively; however, many of these are restricted to four figure grid reference locations, with records from Aldingbourne Rife (grass snake/common lizard), near the A29 (slow-worm), allotments at Hook Lane (slow-worm), and Roundle Avenue, Felpham (grass snake).

Table 3: Summary of Reptile Records

Species	Most Recent Recorded Date	Conservation Status	Distance and Bearing from Site
Common lizard	2019	WCA Sch5 s9.1/s9.1 kill/s9.5a, NERC S41.	Multiple records, nearest 233m north
Grass snake	2019	WCA Sch5 s9.1/s9.1 kill/s9.5a, NERC S41.	Two records, nearest 233m north
Slow-worm	2019	WCA Sch5 s9.1/s9.1 kill/s9.5a, NERC S41.	Multiple records, nearest 233m north

Key: NERC S41 – Natural Environment & Rural Communities Act 2006 Section 41, Hab reg Sch2 – Conservation of Habitats & Species Regulations 2017 (as amended) Schedule 2, WCA – Wildlife & Countryside Act 1981 (as amended), Sussex INNS – Sussex Invasive non-native Species Inventory.

Reptile Survey and Population Assessment

- 4.3 Surveys in 2016 identified a low population of slow-worm within the survey area, with a peak count of one adult on three separate occasions (*Table 4*). These individuals were scattered along the western boundary of the golf course, alongside the Lidsey Rife (*Figure 2*). In addition, a single juvenile grass snake was also recorded on three separate survey occasions, also from alongside the Rife. Two of these grass snake records were from the southern end of the Rife.

Table 4: 2016 Reptile Survey Results

Date	Slow-worm		Grass Snake	
	Adult	Juvenile	Adult	Juvenile
8 th September	-	-	-	1
26 th September	-	-	-	-
28 th September	1	-	-	-
5 th October	1	-	-	1
12 th October	1	-	-	1
18 th October	-	-	-	-
25 th October	-	-	-	-

- 4.4 Update surveys in 2021 confirmed a low population of slow-worm in the survey area, although the peak count had increased to two adults, as well as eight juveniles, though these numbers occurred on separate survey visits (*Table 5*). In addition, a low population of common lizard was also identified (peak of one adult, with records of juveniles also noted), along with further records of juvenile grass snakes.
- 4.5 All three species were found within the application site boundary (*Figure 3*). Sightings of slow-worms were more widespread than in 2016, with several again found along the western boundary, adjacent to the Lidsey Rife, but only adjacent to its northern extent. A small number of slow-worms were also recorded within a stand of trees on the southern boundary with neighbouring residences, with one adult also identified along the eastern site boundary, near hedgerow H12. Common lizards and grass snakes were entirely recorded along the western site boundary, from within tall ruderal and scrub situated adjacent to the southern extent of Lidsey Rife.

Table 5: 2021 Reptile Survey Results

Date	Slow -worm		Common Lizard		Grass Snake
	Adult	Juvenile	Adult	Juvenile	Juvenile
10 th September	-	-	-	-	1
20 th September	2	-	1	-	1
24 th September	-	2	1	1	-
27 th September	1	4	1	-	-
5 th October	-	6	-	1	-
8 th October	1	-	-	-	-
11 th October	-	8	-	1	-

5.0 DISCUSSION AND RECOMMENDATIONS

- 5.1 In the absence of mitigation, there is potential for an adverse impact on reptiles due to the development. These impacts include:
- Loss of habitat through vegetation clearance
 - Population fragmentation
 - Incidental harm during site clearance
- 5.2 Recommended mitigation measures will therefore aim to avoid killing or injuring reptiles during works and post-works habitat enhancements to maintain their local conservation status post-development.

Mitigation Strategy

- 5.3 The majority of reptiles recorded on site were recorded around the peripheries of site where habitats were unmanaged. Many of these areas are to be retained within GI and existing RPA in the scheme, which, along with the deployment of hi-visibility fencing around retained areas of suitable reptile habitat, will ensure that they are not affected by construction work.
- 5.4 Where losses of habitat used by reptiles is proposed, precautionary measures will be implemented. This will include a program of passive displacement, and, if required in some circumstances, a trapping and translocation exercise. These measures will take place prior to the commencement of works in areas where reptiles were recorded.

Enhancements

- 5.5 The proposals for the site include the provision of suitable habitats within the green infrastructure (GI) to the west of the site, as well so linkages to the north and south. habitats will include:
- A mosaic species-rich grassland, shrubs, SuDS will be created, and existing grass habitats enhanced through some additional grassland seed mixes, creating foraging and basking opportunities.
 - Existing linear features, remnants of the gold course, will be retained in some areas these will be enhanced through better management, and new features added that will provide natural refuge and hibernation.
 - Hibernacula and log piles will be created within the GI to increase refuge and hibernation availabilities.
- 5.6 Habitats created and maintained on site will be managed in the long-term to ensure reptiles favourable condition status can be secured.
- 5.7 The creation of new optimal habitats along with long-term management, it is considered that the proposed development will result in a betterment for the local reptile population.



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Key

-  **Site Boundary**
-  **1km Buffer**

Reptiles

-  **Common Lizard**
-  **Grass Snake**
-  **Slow-worm**



Hallam Land Management
Bognor Regis Golf Club,
Bognor Regis

REPTILE CONSULTATION PLAN

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1:13000

drawn
LC

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7/12/2021

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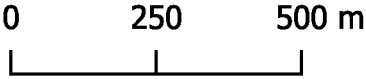
Figure 1

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FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ☎ t:01509 672 772 ☎ f:01509 674 565☎ e: mail@fpcr.co.uk☎ w: www.fpcr.co.uk

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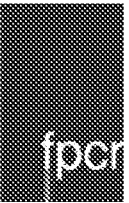
KEY

Site Boundary

Reptile Survey Results

Species (with adult or juvenile numbers)

- Slow worm
- Grass snake
- Reptile tin locations



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REPTILE SURVEY PLAN - 2016

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Figure 2

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Key

-  Site Boundary
-  Additional Survey Area Boundary

Species (with adult or juvenile numbers)

-  Common Lizard
-  Grass Snake
-  Slow Worm
-  Reptile tin locations

