



Defence
Infrastructure
Organisation

Reptile Presence/ Likely Absence Survey Report

Salisbury Plain Training Area Army Basing Programme - Larkhill SFA Phase 4

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Executive Summary

Contents	Summary
Site location and description	The application site is the former Stonehenge Golf Centre which is located north of The Packway, east of Larkhill and west of the village of Durrington centred on Ordnance Survey (OS) National Grid Reference (NGR) SU 1459 4432. The site is approximately 12ha.
Existing site information	<p>URS (March 2014). <i>Larkhill Garrison and SFA sites Preliminary Ecological Appraisal</i>. Unpublished;</p> <p>URS (January 2015). <i>Larkhill Recommended SFA (Updated) Preliminary Ecological Appraisal</i>. Unpublished;</p> <p>URS (December 2014) <i>Larkhill Recommended SFA Site Protected Species Survey Report</i>. Unpublished;</p> <p>WYG (January 2015) <i>Salisbury Plain Development Larkhill SFA: Breeding Bird Report</i>. Unpublished;</p> <p>WYG (April 2015) <i>Salisbury Plain Development: Army Basing Programme Outline Biodiversity Offsetting Report</i>. Unpublished.</p> <p>WYG (April 2016) <i>Salisbury Plain Development: Army Basing Programme Addendum to Biodiversity Offsetting Report</i>. Unpublished.</p> <p>DIO (May 2015) <i>Ecological Mitigation Strategy: Land north of The Packway and to the east of Larkhill</i>. Unpublished;</p> <p>DIO (April 2017) <i>Ecological Mitigation Strategy: Land north of The Packway and to the east of Larkhill</i>. Unpublished.</p>
Results	No reptiles were recorded during the surveys and it is assumed reptiles are absent from the site.
Recommendations	No further surveys or specific information is recommended for reptiles however in the unlikely event that reptiles are encountered during works onsite, all works should cease immediately, and a suitably qualified ecologist be contacted in order to provide further advice.

1.0 Introduction

1.1 Background

WYG was commissioned by Defence Infrastructure Organisation (DIO) and Lovell in April 2017 to undertake a reptile presence/ likely absence survey of land north of the Packway and east of Larkhill on the former Stonehenge Golf Course, which is proposed to provide Service Families Accommodation (SFA) for military personnel and their dependents, comprising 160 new dwellings for SFA Housing. This application forms one part of a multiphase development. The boundary of the site is shown in Figure 1.

The application proposals form part of the Army Basing Programme (ABP), which has been introduced to allow better optimisation of the UK estate and a greater concentration of the Army on Salisbury Plain Training Area (SPTA) as units move back from Germany. As a result, an extra 4,300 troops plus their families will move to the Salisbury Plain area by 2020.

In 2016, three permissions for SFA dwellings were granted in the Salisbury Plain Area at Ludgershall (15/02770/FUL – 246 dwellings), Bulford (15/04006/FUL – 227 dwellings) and Larkhill (15/05540/FUL – 444 dwellings). Since permission was granted for the development at Larkhill, the findings of further archaeological investigations have meant the previously consented scheme at Larkhill could not be implemented. Revised schemes have been prepared for Phases 1 & 2 and Phase 3 which cover the previous masterplan site. Planning permission for Phases 1 & 2 was granted in September 2017. Planning permission for Phase 3 was granted in November 2017. Development approved at Phases 1, 2 and 3 total 290 SFA dwellings. The Phase 4 development which this report relates to is required to provide the balance of dwellings required for the Larkhill development.

This report has been prepared by Sarah Cruickshank Consultant Ecologist GCIEEM.

1.2 Site Location

The application site is the former Stonehenge Golf Centre which is located north of The Packway, east of Larkhill and west of the village of Durrington centred on Ordnance Survey (OS) National Grid Reference (NGR) SU 1459 4432. The site is bounded by open grassland and arable fields to the north and arable fields to the east, The Packway to the south and by Larkhill Camp and existing SFA to the west.

The application site is south east of Phases 1 and 2 and south of Phase 3 and shares a common primary access road. It is located on the former golf driving range surrounded by trees and measures approximately 12ha of land. The site is an open, relatively flat area of land, formerly occupied by a golf driving range comprising

amenity grassland, surrounded by semi-mature trees and mixed plantation woodland planting to the north, east, south and west.

During the Ecological Appraisal for the site habitat of low potential for reptiles was recorded, largely associated with the site boundaries with the main site areas comprising heavily managed short amenity grassland associated with the golf centre.

1.3 Development Proposals

The planning application for Phase 4 includes the following:

- 160 Service Families Accommodation (SFA) dwellings comprising a mix of unit types
- Public open space
- Landscaping
- Internal roads, infrastructure and ancillary works

1.4 Purpose of the Report

The aims of the reptile survey work and the subsequent report presented are to:

- Determine the presence or likely absence of reptiles at the site;
- Outline the legislative protection and relevant planning policy for reptiles;
- Establish if any potential effects on reptile species caused by the development are permissible; and
- Provide advice on mitigation strategies to minimise the risk of adverse impacts on local reptile population(s) which may arise as a result of the proposed development.

2.0 Legislation

An overview of the legislation which is applicable to reptiles is provided below.

There are six reptile species native to the UK; these include slow worm, smooth snake *Coronella austriaca*, sand lizard *Lacerta agilis*, grass snake, adder *Vipera berus* and common lizard *Zootoca vivipara*. All of these reptile species are protected under the Wildlife and Countryside Act 1981 (as amended) and benefit from various levels of protection. The adder, grass snake, slow-worm and common lizard receive partial or full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Intentionally or recklessly kill or injure these animals; and
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisement to buy or sell individual reptiles.

The smooth snake and sand lizard are afforded additional protection, being listed in Annex IVa of the EC Habitat and Species Directive and in Annex II of the Bern Convention. They are also listed in Schedule 5 of Section 9 of the Wildlife and Countryside Act 1981 (as amended) and in Schedule 2 of the Conservation Regulations (as amended) 2010. As a result it is an offence to:

- Intentionally or recklessly kill or injure these animals;
- Deliberately disturb these animals;
- Take or destroy their eggs;
- Damage, destroy or disturb or impede access to breeding or shelter sites used by these species; and
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisement to buy or sell individual reptiles.

All six reptile species native to the UK are also afforded more general protection in England (and Wales) within the Natural Environment and Rural Communities Act (NERC) 2006. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "to have due regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity" [Section 40 (1)]. It notes that "conserving biodiversity includes restoring or enhancing a population or habitat" [Section

40 (3)]. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to reptiles, such as foraging, basking and resting areas.

All UK reptile species are listed as 'Species of Principal Importance' for the Conservation of Biodiversity in England and are listed under Section 41 of the NERC Act.

3.0 Methodology

3.1 Desk Study

A review of the site assessment reports as detailed below was carried out to highlight the ecological conditions and mitigation recommendations submitted for the original application and provide any relevant information on reptiles in the wider site area:

- URS (March 2014). *Larkhill Garrison and SFA sites Preliminary Ecological Appraisal*. Unpublished;
- URS (January 2015). *Larkhill Recommended SFA (Updated) Preliminary Ecological Appraisal*. Unpublished;
- URS (December 2014) *Larkhill Recommended SFA Site Protected Species Survey Report*. Unpublished;
- WYG (January 2015) *Salisbury Plain Development Larkhill SFA: Breeding Bird Report*. Unpublished;
- WYG (April 2015) *Salisbury Plain Development: Army Basing Programme Outline Biodiversity Offsetting Report*. Unpublished.
- WYG (April 2016) *Salisbury Plain Development: Army Basing Programme Addendum to Biodiversity Offsetting Report*. Unpublished.
- DIO (May 2015) *Ecological Mitigation Strategy: Land north of The Packway and to the east of Larkhill*. Unpublished;
- DIO (April 2017) *Ecological Mitigation Strategy: Land north of The Packway and to the east of Larkhill*. Unpublished.

In addition the URS Salisbury Plain Overarching Ecological Appraisal was reviewed for additional data relevant to the proposals.

3.1.1 Local Ecological Records Centre

Information was requested from Wiltshire LERC (WSBRC) for information on any nature conservation designations and protected or notable species records, including reptiles, within 2 km of the site.

3.2 Reptile Presence/ Likely Absence Survey

In accordance with the guidance outlined in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee – JNCC (Gent and Gibson, 2003) and Advice Sheet 10 – Reptile Survey (Froglife, 1999), surveys were undertaken to establish the presence or likely absence of reptile species. This involved carrying out the recommended seven site visits to check the artificial refugia for basking or sheltering reptiles between March and October. The reptile refugia were deployed on 4th April 2017 and the survey visits were undertaken between 18th April and 8th May 2017 (which is within the reptile active season), during suitable weather conditions. As a guideline, it is recommended that the optimal time to survey reptiles is between 8:30am to 11:00am and between 16:00pm and 18:30pm and when air temperature is between 9°C and 18°C. However, the recommended time of day can vary with the weather and in autumn, sun/cloud and overcast weather can force reptiles to bask for longer. Heavy rain and strong wind are deemed unsuitable (Froglife, 1999). As reptile activity is heavily dependent on weather conditions, the following conditions were recorded during each survey: air temperature, wind levels, rain levels, and the cloud cover.

Advice Sheet 10 – Reptile Survey (Froglife, 1999) states that for general survey purposes, refugia should be laid out in suitable habitat at densities of minimum 5-10 refugia per ha. The site is approximately 12ha in size however only approximately 2 ha provided potentially suitable habitat. A total of 28 artificial refugia (0.5m by 0.5m bitumen roofing felt) were placed across the site on 4th April 2017 (this exceeds the recommended minimum). The refugia were deployed at a higher density to partially compensate for the high amount of natural refugia being present, such as the mixed plantation woodland and to make it more likely that reptiles would be found, if present. refugia were left to 'bed in' for a period of two weeks prior to the first survey, to allow for any reptiles on the site to find and utilise them.

The presence / likely absence surveys were carried out by experienced WYG Consultant Ecologist Sarah Cruickshank GCIEEM. During each survey visit, every refugium was first checked for basking reptiles from a distance before being slowly approached and searched for reptiles sheltering underneath. Terrestrial habitat between artificial refugia was also searched for reptile species on each visit. The dates and weather conditions of the presence / likely absence surveys are detailed in Table 1.

Should a reptile be recorded, the reptile species, age and gender should be determined where possible, and any reptile sightings recorded on a map to allow for analysis of population distributions across the site.

Table 1: Date and weather conditions for surveys

Survey Visit	Date	Start time	Temperature (°C)	Precipitation	Wind (Beaufort scale)	Cloud (%)
1	18/04/2017	10:00	10	None	1	100
2	21/04/2017	12:30	12.5	None	1	100
3	24/04/2017	10:15	13	None	1	95
4	27/04/2017	10:30	12	None	1	90
5	02/05/2017	10:00	13.5	None	3	95
6	05/05/2017	11:35	14	None	1	100
7	08/05/2017	10:00	12	Light	2	100

3.3 Limitations

The reptile surveys were completed within optimal weather conditions. As such, the timing of survey 2 and 6 is not considered a significant limitation. During the 7th survey visit, light drizzle occurred. However, due to the mild temperatures and light wind, this is highly unlikely to have had a significant limitation on the survey results.

To gain an accurate population size class assessment of reptiles, more than seven survey visits are required. However, it is largely accepted that seven visits provide adequate evidence of reptile presence / likely absence (providing the surveys are carried out at appropriate times of year and weather conditions).

The details of this report are considered to remain valid for a period of two years from the date of survey (i.e. until May 2019), subject to no significant changes in the development proposals. Beyond this period, if works have not yet been undertaken, it is recommended that a review of the ecological conditions is undertaken.

4.0 Baseline Results

4.1 Desk Study

WSBRC returned 42 records of reptiles comprising 31 records of common lizard, three records of slow worm and six records of grass snake. In addition reptile presence/ absence surveys completed by URS (December 2014) identified a low population of viviparous lizard, with a peak count of one individual, in the previous Phases 1 and 2 of the development.

4.2 Reptile Presence/ Likely Absence Survey Results

No reptiles were recorded during any of the surveys and therefore reptiles are considered likely to be absent from the site.

5.0 Discussion

As no reptiles were found on site during the survey, the proposed works / development are considered unlikely to have an adverse impact on reptiles. As such, no specific mitigation or working practices are recommended. However, in the unlikely event that a reptile is found on site during the works, all site activity must cease and a suitably qualified ecologist be contacted to provide further advice.

6.0 References

Chartered Institute for Ecology and Environmental Management (2013). Guidelines for Preliminary Ecological Appraisal.

Communities and Local Government (2012) National Planning Policy Framework.

DIO (2014). Salisbury Plain Army Basing Programme. Unpublished.

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

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