



ECOLOGYSOLUTIONS

Part of the ES Group

LAND BETWEEN
VILLIERS ROAD AND
PENRHYN ROAD,
KNOWSLEY
BUSINESS PARK

Reptile Survey Report

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1. INTRODUCTION

1.1. Background

- 1.1.1. Ecology Solutions was commissioned by Pembury Developments Limited in February 2022 to undertake reptile surveys at the land between Villiers Road and Penrhyn Road in Knowsley Business Park, Knowsley, Merseyside (see Plan ECO1).
- 1.1.2. Ecology Solutions was previously commissioned in November 2021 by Pembury Developments Limited to complete an ecological assessment of the site. During this assessment it was highlighted that two centrally located sections of the site comprise rough grassland, a habitat deemed suitable for common reptiles. As such, a reptile survey was recommended and subsequently carried out.
- 1.1.3. The proposal for the site comprises the erection of a new building for Class E (industrial), B2 general industrial and B8 storage/distribution including ancillary offices, landscaping, yards, access points off Villiers Road, car parking, cycle parking and associated engineering works.

1.2. Site Characteristics

- 1.2.1. The site is located within an existing industrial estate and bounded by Penrhyn and Villiers Roads. It is dominated by scrub, with centrally positioned patches of rough and rush dominated grassland, in addition to small areas of hardstanding and tarmac which are connected by well-worn tracks. A line of planted semi-mature trees is also present along the southern and western boundaries.
- 1.2.2. Beyond the site boundary to the north lies the A580 and a continuation of the industrial site, to the south and west lies the M57 and residential properties, and to the east lies arable farmland (see Plan ECO1).

1.3. Purpose of this Report

- 1.3.1. This document sets out the results of reptile surveys undertaken during April and May 2022.
- 1.3.2. Where necessary, mitigation measures are recommended so as to safeguard this faunal group within the site and, where appropriate, potential enhancement measures are put forward.

2. LEGISLATION AND ECOLOGY

2.1. Legislation

- 2.1.1. All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance.
- 2.1.2. Rare, endangered or declining species receive 'full protection' under the Wildlife and Countryside Act 1981 (as amended) as well as protection under the Conservation of Habitats and Species Regulations 2010 (as amended), which transposes into UK law the European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, more commonly known as the Habitats Directive. Species that are fully protected include Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis*. Owing to the habitat requirements of these species it was considered highly unlikely that these species would be present on the site.
- 2.1.3. Owing to their abundance in Britain, Common Lizard *Zootoca vivipara*, Slow Worm *Anguis fragilis*, Grass Snake *Natrix natrix* and Adder *Vipera berus* are only 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), and as such only receive protection from:
- deliberate killing and injuring;
 - being sold or other forms of trading.
- 2.1.4. As such, although the animals themselves are protected, their habitat does not receive protection. Therefore, the presence of these species is a legal compliance matter rather than a constraint to the principle of development *per se*.

2.2. Ecology

- 2.2.1. There are six native reptile species in Britain. They are found in a wide variety of habitats, including woodland edge, heaths and especially rough grassland. Ideally reptiles require a varied habitat structure that provides shelter, a range of sunny and shady spots and frost-free areas to hibernate over winter.
- 2.2.2. Reptile species cannot generate their own body heat and therefore need to raise their body temperatures using external heat sources, especially by basking in the sun, which greatly influences their behaviour.
- 2.2.3. Most reptiles hibernate between October and March, when weather conditions are unsuitable for activity however during warm weather can be active until November. During April to September reptiles are generally only active in warm weather but avoid prolonged exposure to the sun on very hot days. Reptiles are usually inactive during the night.
- 2.2.4. Snakes occupy fairly large ranges, sometimes covering several kilometres during the course of a year, although they usually return to the same area each year to hibernate. Adders and Smooth Snakes eat mostly reptiles and small mammals, while Grass Snakes prey largely on amphibians.

- 2.2.5. Lizards have smaller ranges than snakes and are often found in close proximity to landscape features such as embankments. Common Lizards and Sand Lizards spend relatively large amounts of time basking, while Slow Worms are often hidden in vegetation or found under refuges. All three species of lizard eat invertebrates.

3. SURVEY METHODOLOGY

3.1. The methodology utilised for the survey work can be split into two areas, namely desk study and faunal survey. These are discussed in more detail below.

3.2. Desk Study

3.2.1. In order to compile background information on the site and the surrounding area, Ecology Solutions contacted Merseyside Biobank Local Environmental Record Centre (MBBLERC).

3.3. Reptile Survey

3.3.1. Specific surveys were undertaken for reptiles at the site during suitable weather conditions in April and May 2022.

3.3.2. Areas of suitable reptile habitat were surveyed for the presence of reptiles using artificial refugia ("tins"). A total of 56 ½m x ½m roofing felt tiles were placed in suitable habitat within the site (see Plan ECO2).

3.3.3. The tins provide shelter and heat up quicker than the surroundings in the morning and can remain warmer than the surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature which allows them to forage earlier and later in the day.

3.3.4. To determine presence / absence the tins were checked for reptile activity over seven visits at appropriate times of the day in accordance with Natural England guidance.

4. SURVEY RESULTS

- 4.1. Seven reptile checks were carried out in April and May 2022 during favourable weather conditions for reptile activity. Optimum weather conditions for reptile surveying are temperatures between 9 and 18°C, intermittent or hazy sunshine and little or no wind.
- 4.2. The surveys did not record any reptile species. The location of the reptile tins are shown on Plan ECO2 and the details of the survey effort are shown in Table 4.1 below.

Cloud Cover (%)	Temp (°C)	Time	Date	Common Lizard		Slow Worm		Grass Snake	
				Adult	Juvenile	Adult	Juvenile	Adult	Juvenile
95	15	11:30 - 12:25	11.04.22	0	0	0	0	0	0
95	14	11:45 - 12:15	14.04.22	0	0	0	0	0	0
75	12	10:45 - 11:20	18.04.22	0	0	0	0	0	0
0	15	10:55 - 11:20	21.04.22	0	0	0	0	0	0
95	11	10:55 - 11:20	25.04.22	0	0	0	0	0	0
100	10	11:35 - 12:05	28.04.22	0	0	0	0	0	0
100	11	11:35 - 12:05	04.05.22	0	0	0	0	0	0

Table 4.1. Reptile survey results.

- 4.3. The desk study did not return any records for reptiles within the last ten years.

5. DISCUSSION

5.1. Usage of the Site by Reptiles

- 5.1.1. The surveys completed in accordance with current survey guidelines and completed during favourable weather conditions did not identify any reptiles, or evidence of reptiles from within the suitable habitat within the site. As such the likely absence of this partially protected group has been established.
- 5.1.2. Given the current likely absence there would be no reptile constraint to the removal of the habitats. Additionally, considering the urban positioning of the site it is relatively unlikely that any locally present reptile populations would be able to disperse into the site. However, should there be a delay in the commencement of any site works, it is recommended that the site is appropriately managed to ensure any development of habitats which could encourage the colonisation of the site by reptiles, or other species of conservation concern, is avoided.

6. SUMMARY AND CONCLUSIONS

- 6.1. Ecology Solutions was commissioned by Pembury Developments Limited in February 2022 to undertake reptile surveys at the land between Villiers Road and Penrhyn Road in Knowsley Business Park, Knowsley, Merseyside.
- 6.2. Ecology Solutions was previously commissioned in November 2021 by Pembury Developments Limited to complete an ecological assessment of the site. During this assessment it was highlighted that two centrally located sections of the site comprise rough grassland, a habitat deemed suitable for common reptiles. As such, a reptile survey was recommended and subsequently carried out.
- 6.3. The proposal for the site comprises the erection of a new building for Class E (industrial), B2 general industrial and B8 storage/distribution including ancillary offices, landscaping, yards, access points off Villiers Road, car parking, cycle parking and associated engineering works.
- 6.4. During seven reptile surveys undertaken within April and May 2022 no reptiles were recorded and as such no mitigation measures are necessary.
- 6.5. In order to deter future dispersal on to the site by common reptiles it is recommended that appropriate management be employed in order to halt the growth of the existing vegetation and therefore remove suitability for reptiles.
- 6.6. In conclusion the survey has established the likely absence of reptile species and no further mitigation for these species is required.

PLANS

PLAN ECO1

Site Location



KEY:



SITE LOCATION



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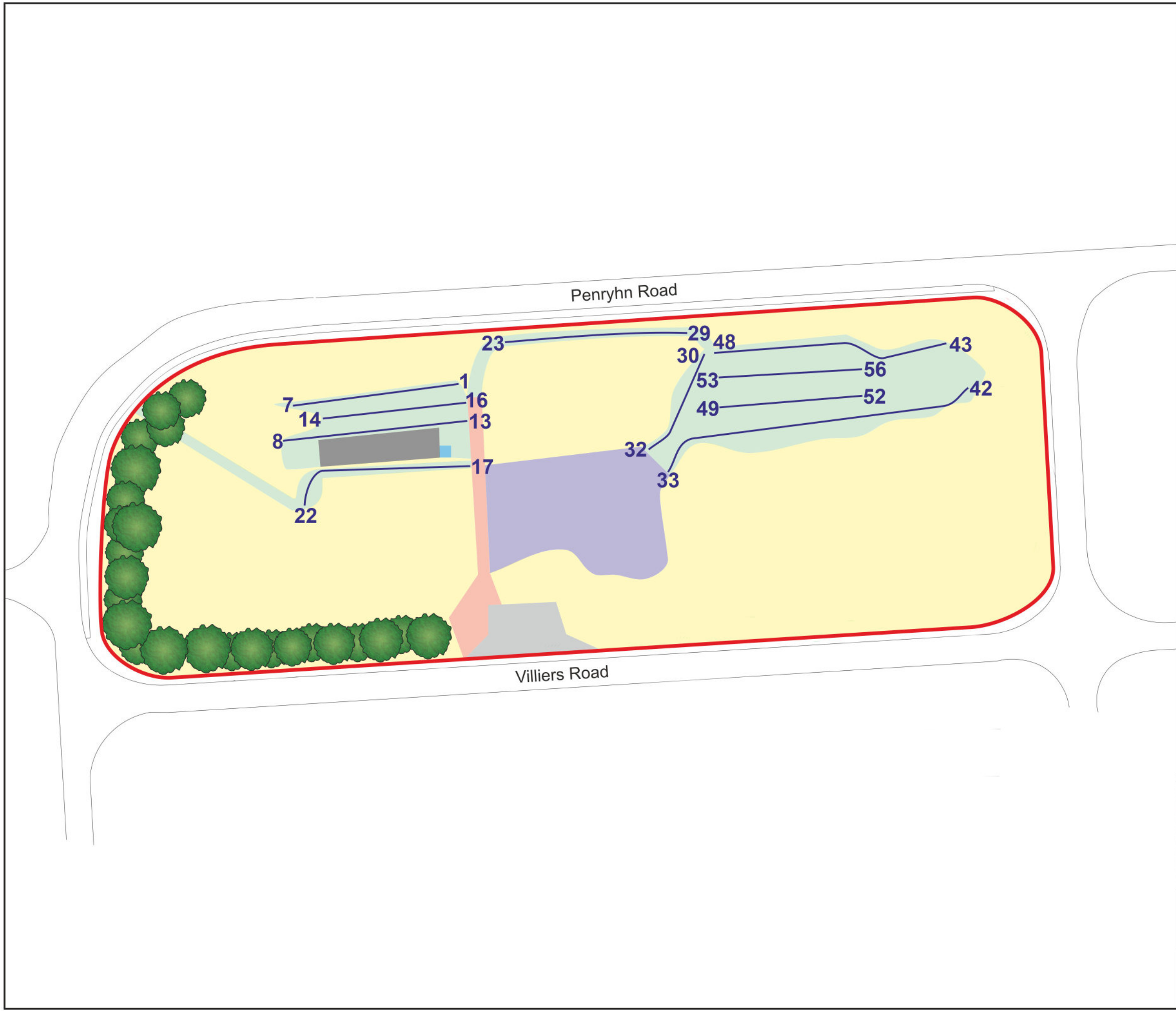
10337: LAND BETWEEN VILLIERS ROAD
AND PENRHYN ROAD,
KNOWSLEY BUSINESS PARK

PLAN ECO1: SITE LOCATION

Rev: A
May 2022

PLAN ECO2

Ecological Features and Reptile Tin Locations



KEY:

- SITE BOUNDARY
- REPTILE TIN LOCATIONS
- ROUGH GRASSLAND
- RUSH DOMINATED GRASSLAND
- SCRUB
- TRACK
- HARDSTANDING
- TARMACADAM
- STANDING WATER
- TREE

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10337: LAND BETWEEN
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PLAN ECO2: ECOLOGICAL
FEATURES AND REPTILE
TIN LOCATIONS

Rev: A
May 2022



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