



**New England Resource Recovery Centre  
Nr. Lee Mill, Devon**

**Technical Appendix 12-7 – Reptile Survey**

**Viridor**

**January 2010  
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**Drawing 1 -Reptile Location Plan**

## **1.0 INTRODUCTION**

Viridor commissioned SLR Consulting Ltd (SLR) to undertake a reptile survey to support the planning application in support of a Resource Recovery Centre at New England Quarry near Ivybridge in the county of Devon in the south west of England. The aim of the survey was to determine whether the site and the habitats it contains, support species of reptile.

### **1.1 Legislative and Policy Background**

All UK reptiles are protected from reckless or intentional harm by the Wildlife and Countryside Act 1981 (as amended) and therefore, under the guidance of PPS9, the presence of these species should be considered during the development planning process.

## 2.0 METHODOLOGY

The survey was conducted following guidelines set out in the Herpetofauna Workers Manual<sup>1</sup> and best practice guidelines issued from Froglife<sup>2</sup>. Reptile surveys use artificial refugia in the form of roofing felt tiles approximately 1 metre by 0.5 metres in size and corrugated sheeting material. These refugia are placed in suitable habitat at a density of >10 per hectare.

Refugia were set out in three transects across the site in areas of rank grassland and scrub around the margins of the site and in the grassland to the north of the site. Bare crushed aggregate and broadleaved woodland is not considered optimal habitat for reptiles and these habitat types were not sampled. A total of 70 refugia were used, giving a density of 35 refugia per hectare of suitable habitat. No refugia were deployed along the route of the proposed access route as this was unconfirmed in 2008 and is largely woodland habitat of negligible value to reptiles; more open areas are considered highly unlikely to support any species other than those already confirmed in the main site during the 2008 survey.

The refugia were checked a total of seven times, which is the minimum number of visits recommended to determine presence or likely absence of reptiles at a site. The refugia were then given a week to 'bed in' before commencing checks between 16<sup>th</sup> April and the 30<sup>th</sup> July 2008.

Refugia were checked during suitable weather conditions (dry, calm, ambient temperature 9-18°C) either in the morning (before 11.00 hours) or afternoon (after 16.00 hours), inspecting both on top of and below each refuge. During each visit, the surveyor also carried out a degree of passive survey; searching vegetation heaps and rubble piles and other debris for basking / sheltering reptiles.

The population of each species was assessed as being Low, Good or Exceptional according to guidance published by Froglife.

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<sup>1</sup> Gent, T., Gibson S, (2003), *Herpetofauna Workers Manual*. JNCC, Peterborough

<sup>2</sup> Froglife (1999) *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth

### **3.0 RESULTS**

#### **3.1 Data Search**

Devon Biodiversity Records Centre (DBRC) and the NBN Gateway website<sup>3</sup> were consulted to obtain further information regarding the status of reptiles in the locality. A single record of grass snake (*Natrix natrix*) to the north of the site near Lee Mill was returned from DBRC and records for all four common species of UK reptile adder (*Viper berus*), common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*) and grass snake were returned from the NBN but none closer than 2.6km to the site. The relative low number of recorded species in the area of the site is likely to reflect a lack of records as opposed to the absence of reptiles in the area. All four species of common reptile are widely distributed in the South West of England.

#### **3.2 Habitat Description**

The main site largely comprises habitats that are generally suboptimal for reptile species, with dense scrub and establishing woodland and areas of un-vegetated hard standing. The habitats with potential to support reptiles are confined to the margins of scrubby areas and the establishing grassland habitat located at the top of the cliff on the western edge of the site. The scrubland margins comprise European gorse (*Ulex europaeus*), bramble (*Rubus fruticosus*) with grassland comprising cock's-foot (*Dactylis glomerata*) sheep's fescue (*Festuca ovina*) and sweet vernal-grass (*Anthoxanthum odoratum*).

The proposed access route will pass through predominately woodland and dense scrub habitats with negligible potential to support reptile species. The area of pasture within the northern half of the access road is of limited value to reptiles, being largely shaded by adjacent areas of scrub, although more open areas could support low numbers of reptiles.

Habitats within the wider and surrounding areas are also broadly suitable including marshy grassland, pasture and hedge banks, and are connected to the site itself.

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<sup>3</sup><http://data.nbn.org.uk>

**Table 1 – Results of the Reptile Survey**

| Date     | Cloud cover (%) | Temperature (°C) | Wind conditions | Results       |           |             | Location                                 |
|----------|-----------------|------------------|-----------------|---------------|-----------|-------------|--|
|          |                 |                  |                 | Common lizard | Slow worm | Grass snake |  |
| 16/04/08 | 30              | 9                | Moderate        | 1             | 1         | 0           | All on grassland on western edge of site |
| 02/05/08 | 80              | 15               | None            | 0             | 1         | 0           | All on grassland on western edge of site |
| 04/06/08 | 100             | 17               | None            | 0             | 25        | 1           | All on grassland on western edge of site |
| 16/06/08 | 95              | 15.5             | None            | 1             | 15        | 1           | All on grassland on western edge of site |
| 23/06/08 | 50              | 20               | None            | 1             | 16        | 1           | All on grassland on western edge of site |
| 25/06/08 | 40              | 21.5             | Moderate        | 1             | 32        | 2           | All on grassland on western edge of site |
| 08/08/08 | 80              | 16               | Light           | 1             | 24        | 0           | All on grassland on western edge of site |

## **4.0 DISCUSSION AND EVALUATION**

### **4.1 Reptile Population Evaluation**

Three species of reptile were found to be present within the site; Low populations of grass snake and common lizard and a Good population of slow worm according to Froglife guidelines for population assessment.

Using the criteria for defining “Key Reptile Sites”<sup>1</sup>, the reptile assemblage observed meets Criteria 1 and 4 and therefore would qualify for inclusion on the Key Reptile Site Register.

All of the reptiles were recorded in the grassland area on top of the cliff to the western edge of the site or in its near vicinity, refer to Drawing 1. No reptiles were recorded elsewhere in the site. Given the presence of sub-optimal habitats across the remaining areas of the application site, it is considered unlikely that these species regularly use habitats other than those identified in the current survey.

### **4.2 Legal Implications**

All UK reptile species are protected from reckless or intentional harm under the Wildlife and Countryside Act 1981. Therefore, any works proposed within the areas identified as supporting reptile populations should consider the presence of these species and an appropriate mitigation scheme should be designed to minimise the impacts upon reptile populations and ensure that populations are not adversely affected in the long-term.

The main area used by reptiles will be lost during the development of the second landfill cell in and around the southern half of the quarry void. Prior to the loss of these areas, it will be necessary to take precautions to prevent the killing or injury of reptiles species; this will involve a translocation scheme to move reptiles to a safe receptor site which would be enhanced for reptiles and managed favourably in the long-term. Chapter 12 of the Environmental Statement includes proposals for the proposed mitigation and compensation strategy to safeguard the reptile population.

## **5.0 SUMMARY AND CONCLUSIONS**

Reptile surveys at a proposed development site at New England Quarry, Devon identified populations of three species of reptile. Low populations of grass snake and common lizard and a Good population of slow worm scores sufficiently well on the criteria for "Key Reptile Sites" that this assemblage and the habitats that support it would qualify for inclusion on this register.

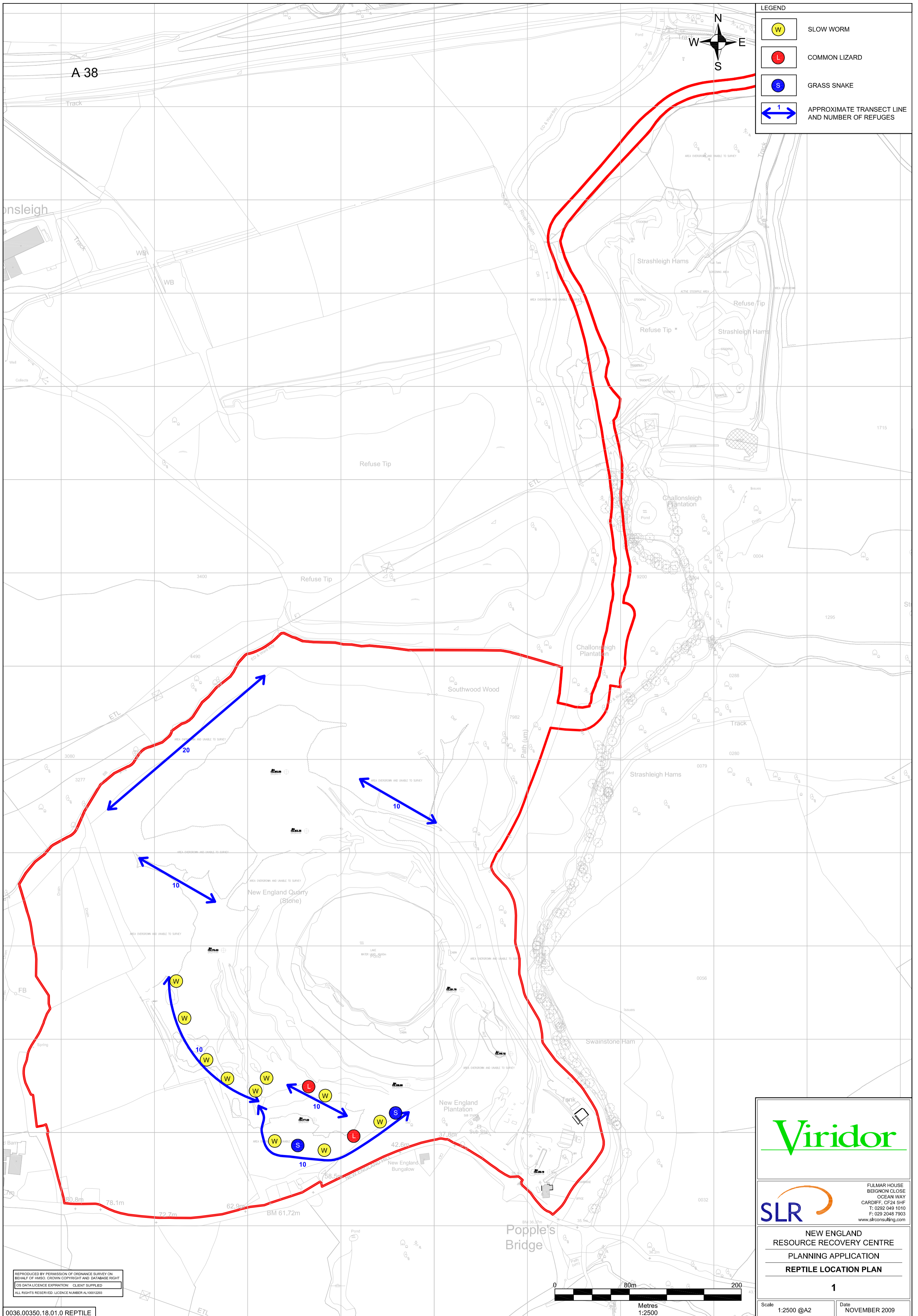
A proposed mitigation / compensation and management plan is proposed for retained areas of grassland outside of the working areas to ensure the long term viability of the reptile populations present.

## **6.0 CLOSURE**

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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**LEGEND**

- W SLOW WORM
- L COMMON LIZARD
- S GRASS SNAKE
- ← 1 → APPROXIMATE TRANSECT LINE AND NUMBER OF REFUGES

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NEW ENGLAND  
RESOURCE RECOVERY CENTRE  
PLANNING APPLICATION  
REPTILE LOCATION PLAN

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Scale 1:2500 @A2      Date NOVEMBER 2009

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