Gravity

Smart Campus

Gravity LDO Environmental Statement

Volume 2 – Appendices

Appendix 12.7

Reptile Survey Report

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1. INTRODUCTION

1.1. Background

1.1.1. Ecology Solutions Ltd was commissioned on behalf of This Is Gravity in March 2020 to undertake a comprehensive programme of ecology survey work for This is Gravity Ltd (TIGL), at the site known as Gravity, at Puriton, near Bridgwater, Somerset; hereafter referred to as the 'Site'.

1.1.2. Survey work undertaken at the Site includes a range of habitat and species-specific surveys covering the 2020 survey period. This report has been produced in order to detail the methodologies and findings of the habitat survey work undertaken.

1.1.3. It should also be recognised that the Site has already been subject to previous extensive ecological survey and assessment work as part of the decommissioning and remediation works which have planning consent, as well as to inform the extant hybrid planning permission for the Site redevelopment and Natural England licence applications.

1.1.4. The majority of the Site has been the subject of numerous ecological surveys since 2008. EnvironPlus International Limited (EPI) undertook an initial suite of surveys in 2008, with Ecology Solutions having undertaken regular update work since 2011. The results of the survey works are detailed in the Environmental Statement (2013) and ES Addendum (2017) produced by Ecology Solutions in support of the extant planning permission.

1.1.5. The majority of the site and the previous surveys on it, did not include the 'full' Site, therefore as well as updating previous surveys, surveys of the additional land to be contained in the LDO were included.

1.1.6. The extensive historic survey information available has been used to inform the update survey work and is referenced, where necessary, within this report.

1.2. Site Characteristics

1.2.1. The main component of the Site is located to the north east of Puriton. In addition, the Site includes a railway spur to the north west, a road connection from Junction 23 of the M5 motorway to the south west of the Site and a reedbed system that connects the Site to the River Huntspill to the north. The Site is within an agricultural setting, and is located between the villages of Puriton (to the west) and Woolavington (to the east).

1.2.2. Broadly, the Site comprises grasslands, woodland, scrub, hedgerows, tall ruderal and ephemeral vegetation along with standing water, reed bed, wet and dry ditches as well as buildings and hardstanding. There are also areas of disturbed / bare ground.

1.1. Reptile Survey Report

1.1.1. This document describes the results of the reptile survey work undertaken and provides a broad assessment of the current ecological interest of the

Site as a whole for this species group, based upon field and desk-based studies. The importance of the Site for reptiles within the Site is evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM) [1].

[1]CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester

2. SURVEY METHODOLOGY

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

2.2 Desk Study

2.2.1 In order to compile background information on the use of the application site and its immediate surroundings by reptiles, Ecology Solutions contacted Somerset Ecological Records Centre (SERC). The records received are collated data from a number of sources and provide information on an array of reptile species (covering a 3km search radius from the Site).

2.2.2 Information provided by SERC is referred to where relevant below.

2.3 Reptile Survey

2.3.1 Specific surveys to identify the presence or absence of reptiles within the Site were undertaken during September 2020 and October 2020.

2.3.2 A total of 197 'tins' (0.5 x 0.5 metre squares of heavy roofing felt which are often used as refuges by reptiles) were distributed in areas comprising suitable habitat at the Site. Tins were placed within the Site at a density of to allow for a population size assessment to be undertaken, as set out within relevant guidance produced by Froglife[2].

2.3.3 The tins were left in place for several days to 'bed in' prior to surveys commencing. They were subsequently surveyed for reptiles beneath or upon them during suitable weather conditions.

2.3.4 Suitable weather conditions to carry out surveys are when the air temperature is between 9 and 18°C. Heavy rain and windy conditions should be avoided.

2.3.5 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 and raise their body temperature which allows them to forage earlier and later in the day.

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

3. SURVEY RESULTS

3.1 The Site contains elements of grasslands, scrub, hedgerows and woodland edge habitat that are of value to common reptile species. Furthermore, the Site has areas of standing water, ditches and wetland habitats that are of particular value to Grass Snake. As such, the Site has been subject to detailed survey for this species group both historically and in 2020.

3.2 **Previous surveys.** Refugia surveys were undertaken at the Site by EPI between March and June 2009. In total 1137 tins were distributed within the Site.

3.3 The surveys recorded that there is a small population of Grass Snakes within the Site. Adults were recorded primarily in the northern and south-eastern parts of the Site, with sub-adults and juveniles also recorded in areas of suitable habitat in the southern, north-western, and eastern parts of the Site.

3.4 **Updated surveys.** Further update refugia surveys have been undertaken focussed on habitat of known value to reptiles. The survey was timed to cover the later part of the active season, when refugia surveys are known to be most effective. Tins were places within the Site at a density to allow for a population size assessment to be undertaken, as set out within relevant Froglife guidance. Areas subject to tinning include the grasslands / wetland adjacent to the ditch network and Fishing Lake to the north-east, meadow grassland in the north-west and marshy grassland to the south of the Site as well as the reedbed to the north. These areas are shown graphically on Plan ECO1.

3.5 The results of the updated survey work undertaken in 2020 are presented within Table 1 below.

Date	Cloud Cover %	Temperature (°C)	Grass Snake				
			M	F	J	U	Total
23/09/20	100	15	0	0	0	0	0
25/09/20	20	12	0	1	0	0	1
29/09/20	90	15	0	0	2	0	2
01/10/20	70	12	0	0	0	0	0
06/10/20	100	13	0	0	1	0	1
08/10/20	40	15	0	0	2	0	2
09/10/20	100	11	0	0	2	0	2

Table 1: 2020 reptile survey results

3.6 On the basis of the results of the 2020 survey work, it is considered that a small population of Grass Snake remains present within suitable habitat at the

margins of the Site. It is considered that no other reptile species are present at the Site.

3.7 **Background records.** The desk study undertaken with SERC did not return any records of reptiles from within or immediately adjacent to the Site. The nearest records returned are of Grass Snake from a location approximately 0.06km to the north-west in 2008. Slow worm *Anguis fragilis* were also recorded in the local area.

4. SUMMARY AND CONCLUSIONS

3.8 Ecology Solutions Ltd was commissioned on behalf of This Is Gravity in April 2020 to undertake a suite of ecology survey work at the site known as the Gravity Smart Campus, Puriton, Somerset.

3.9 The Site was surveyed based around the standard reptile good practice guidelines produced by Froglife.

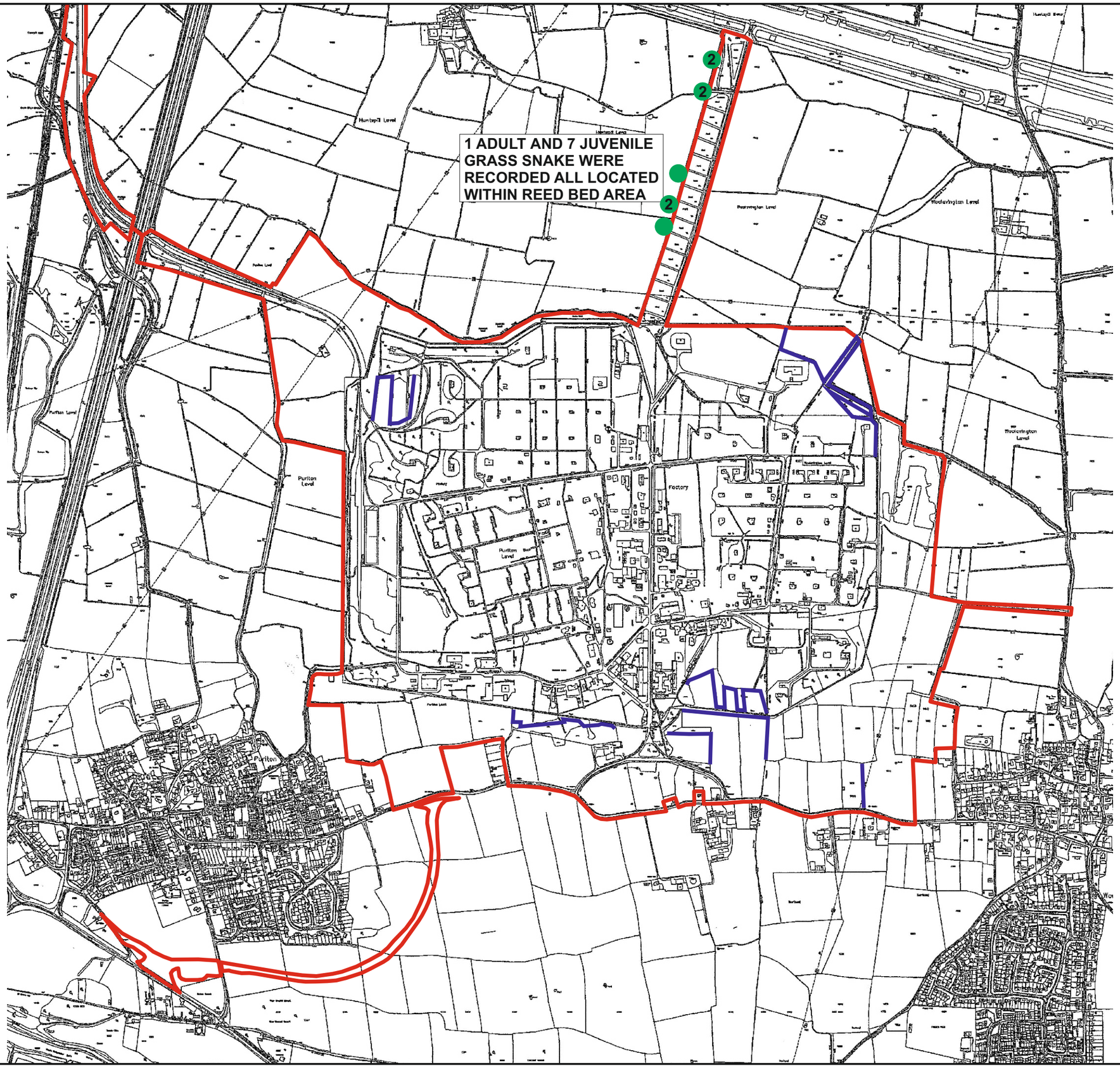
3.10 The results of the survey work undertaken are present within this report and it is considered that an extensive ecological baseline for reptiles has been established that can fully inform any future assessment / evaluation of the Site in ecological terms.

3.11 The survey work has informed the LDO process and the related Environmental assessment process.

PLANS

PLAN ECO1

Reptile Survey Results



KEY:

- SITE BOUNDARY
- APPROXIMATE TIN DISTRIBUTION
- GRASS SNAKE RECORDED

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7761: GRAVITY

PLAN ECO1:
REPTILE SURVEY RESULTS

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