

**APPENDIX 10F: REPTILE SURVEY REPORT.**

# South Humber Bank Energy Centre

South Marsh Road, Stallingborough, DN41 8BZ

**Appendix 10F: Reptile Survey**

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**Applicant: EP SHB Limited**  
**Date: December 2018**

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## 1.0 INTRODUCTION

- 1.1 This Appendix of the Environmental Statement (ES) presents the results of the reptile survey undertaken for the Proposed Development. The terms of reference used in this report are consistent with those defined within the main chapters of the ES (Volume I).

### Survey Scope

- 1.2 A presence/absence survey for reptiles was undertaken within the Survey Area. A total of seven visits were undertaken to meet the minimum requirements for determining presence/absence as set out in standard survey guidance (Froglife, 1999).
- 1.3 The Survey Area included all accessible habitats considered suitable for reptiles within the Main Development Area, as well as habitats within the red line boundary of the Proposed Development along the banks of Ditches 1, 2, 3 and 6 (see Appendix 10C: Preliminary Ecological Appraisal Report). Therefore a larger area was surveyed than is likely to be affected by the Proposed Development.

### Relevant Legislation

- 1.4 All widespread UK species of reptile (adder (*Vipera berus*), grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*)) receive legal protection through their inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly kill or injure a reptile. However, as they are not European protected species their habitat does not receive legal protection.
- 1.5 All native UK reptile species are listed as 'Species of Principal Importance for Conservation in England' under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the same Act requires that local and regional authorities have regard to the conservation of biodiversity in England, when carrying out their normal functions.
- 1.6 The Proposed Development lies well outside the known range of the sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) which are European protected species. Given this and that the site lacks the necessary habitat to support these species, neither are considered further in this report.

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## 2.0 SURVEY METHODS

### Desk Study

- 2.1 A desk study was undertaken as part of the scope of works for the Phase 1 Habitat survey and is reported in detail in the Preliminary Ecological Appraisal Report (Appendix 10C in ES Volume III). Reptile records were obtained from the local ecological records centre (Greater Lincolnshire Nature Partnership) for a search radius of 1 km from the Site boundary, referred to as the study area in this report.

### Reptile Survey

- 2.2 A reptile survey was undertaken following best practice guidance as detailed in Froglife (1999) with reference to Gent and Gibson (1998) and English Nature (2004). The methods employed comprised a combination of Artificial Refuge Survey (ARS) and Visual Encounter Surveys (VES).
- 2.3 The VES involved surveyors slowly walking along predetermined transects scanning the vegetation for reptiles. The walked transects were designed to include, where possible, a range of suitable vegetation types, south facing banks and suitable natural and artificial refuges and basking areas.
- 2.4 A total of 69 artificial reptile refuges (roofing felt tiles measuring approximately 0.5m<sup>2</sup>) were placed in suitable reptile habitat where they would receive direct sun in the morning and afternoon to warm up. The locations of the refuges are shown on Figure 10F.1. The refuges were set out on 8<sup>th</sup> June 2018 and left for a period of 4 weeks to enable them to bed in prior to the first reptile survey being undertaken. More than 10 refuges per hectare of suitable reptile habitat were installed in accordance with standard survey guidelines (Froglife, 1999).
- 2.5 A total of seven survey visits were undertaken between July and September, during suitable weather conditions (ideally with temperatures between 12 and 18°C, sunny with no rain or strong winds).

### Limitations

- 2.6 Two of the surveys in July and August were undertaken on particularly warm days, when the maximum temperature exceeded the 12° to 18°C stated in the survey guidelines. This was due to the particularly hot, dry summer conditions experienced across the country in 2018. Surveys were subsequently delayed until later in the summer towards the end of August, when the peak temperatures were lower. Given that no reptiles were recorded during the surveys undertaken in optimal weather conditions, this is not considered to represent a limitation to the data collected.
- 2.7 The grassland within the Survey Area was mown for hay in August 2018 and resulted in accidental damage to five refuges, which were subsequently removed from the survey area. This is not considered a limitation on the collection of survey data given the small number of refuges affected.

### 3.0 SURVEY RESULTS

#### Desk Study

3.1 The desk study did not return any records of reptiles from within the study area.

#### Weather Conditions and Timings of Surveys

3.2 The weather conditions recorded during the reptile surveys are presented in Table 10F.1 below.

**Table 10F.1: Weather Conditions during ARS/VES Surveys**

SURVEY DATE	MAX TEMP	WIND SPEED (MPH)	CLOUD COVER (OKTAS)	WEATHER	SURVEY TIMES
06/07/18	23°C	4	2/8	Hot, dry, still	12:00 – 14:30
08/08/18	23°C	2	4/8	Hot, dry	10:00 – 12:00
23/08/18	17°C	6	3/8	Warm, dry	10:30 – 12:30
06/09/18	16°C	4	4/8	Dry	10:30 – 13:00
12/09/18	16°C	8	4/8	Breezy, dry, cloudy spells	10:00 – 12:30
25/09/18	16°C	2	0/8	Clear, sunny, slight breeze	10:30 – 12:30
03/10/18	17°C	2 – 5	7/8	Dry, still, light breeze	10:30 – 12:30

#### Artificial Refuge Survey (ARS)

3.3 The survey data are presented in Annex A.

3.4 No reptiles were recorded during the ARS, but common toad (*Bufo bufo*) was occasionally found beneath the refuges.

#### Visual Encounter Surveys (VES)

3.5 No reptiles were recorded during the VES. Small numbers of common toads were observed around the tarpaulin covered area close to Pond 2.

## 4.0 CONCLUSIONS AND EVALUATION

- 4.1 No evidence to indicate the presence of reptiles was found within the Main Development Area or within the wider Survey Area as a result of the surveys or through the desk study.
- 4.2 However, given that there is suitable reptile habitat within the Survey Area, it is possible that grass snake is present on occasion in the ditches and ponds.
- 4.3 It is therefore recommended that precautionary mitigation is implemented to avoid the accidental killing/ injury of reptiles during the clearance of habitats that may support grass snake. This includes the banks of the ditches, and marginal habitat associated with Ponds 1 and 2.



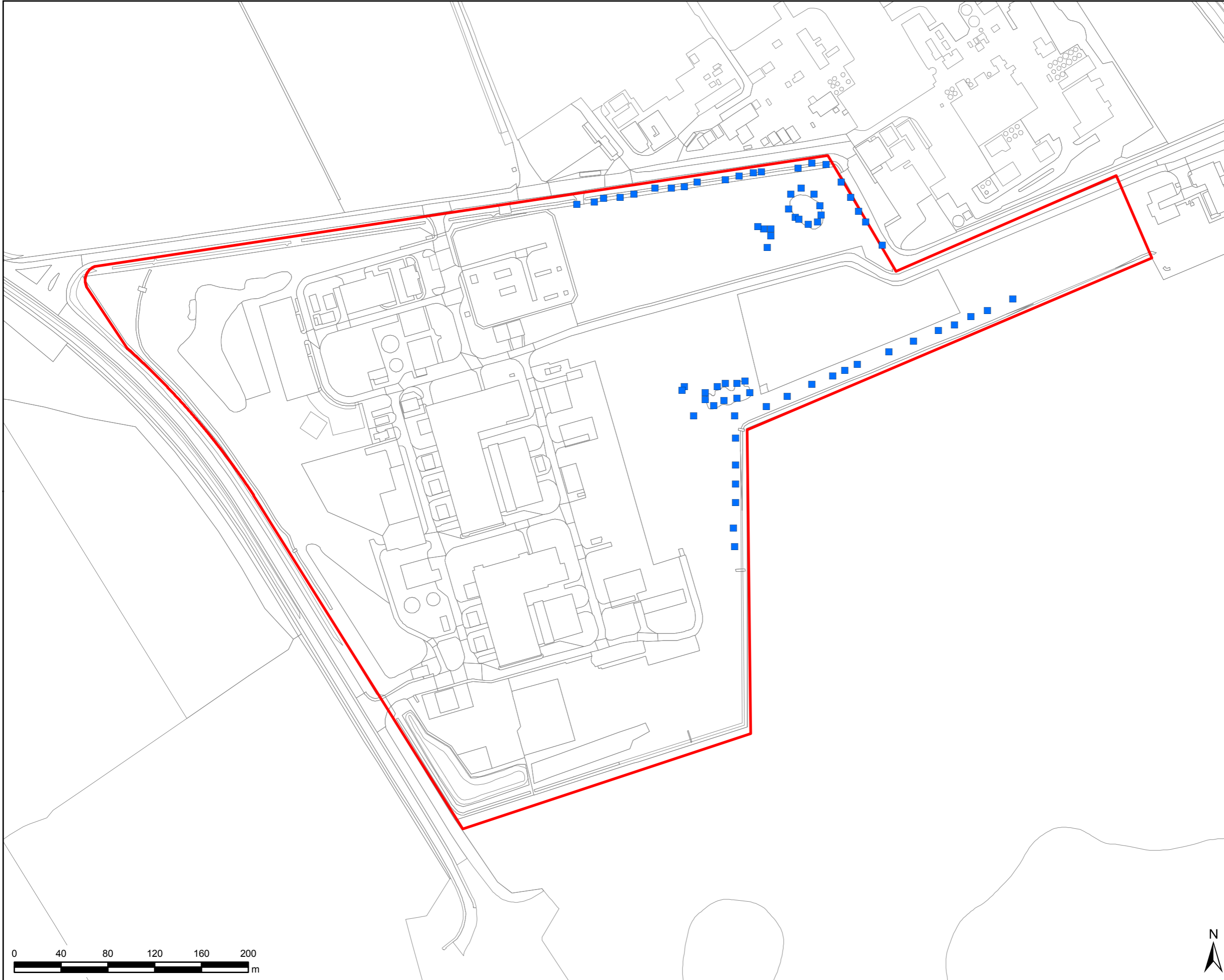
## 5.0 REFERENCES

- Edgar, P., Foster, J. and Baker, J. (2010) *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.
- English Nature (2004) *Reptiles: guidelines for developers*. English Nature (now Natural England), Peterborough.
- Froglife (1999) *Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.
- Gent, T. and Gibson, S. (1998) *Herpetofauna Workers' Manual*. JNCC, Peterborough.
- Herpetofauna Groups of Britain and Ireland (HGBI) (1998) *Evaluating local mitigation/ translocation programme: Maintaining Best Practice and lawful standards*. HGBI advisory notes for Amphibian and Reptile Groups c/o Froglife, Halesworth.

**FIGURE 10F.1: LOCATION OF REPTILE SURVEY REFUGES**

THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

- Application Boundary
- Reptile Refuge Location



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Purpose of Issue  
**ENVIRONMENTAL STATEMENT**

Client  
 EP SHB

Project Title  
**SOUTH HUMBER BANK  
 ENERGY CENTRE**

Application Document Ref  
**REPTILE REFUGE LOCATIONS**

Drawn LC	Checked SD	Approved JA	Date 06/11/2018
AECOM Internal Project No. 60580855		Scale @ A3 1:3,000	

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Drawing Ref **FIGURE 10F.1** Rev

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## ANNEX A: SURVEY RESULTS

Date	Reptile	Other Observations	Notes
06/07/18	Absent	Common toad at refuges 93 & 214	
08/08/18	Absent	Common toad at refuge 169	Vegetation management works have resulted in damage to mats 72,156, 214,158 & 222
23/08/18	Absent	Common toad at refuges 62 & 75	
06/09/18	Absent	Otter spraint, refuge 113	Fresh spraint on mat
12/09/18	Absent	Otter spraint, refuge 113	Fresh spraint on mat
25/09/19	Absent	-	
03/10/18	Absent	-	