Fosse Green Energy

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EN010154

6.3 Environmental Statement Appendices

Appendix 8-F: Reptiles and Common Toad

VOLUME

6

Planning Act 2008 (as amended)

Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

18 July 2025

Planning Act 2008

The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulation 2009 (as amended)

Fosse Green Energy

Development Consent Order 202[ ]

6.3 Environmental Statement Appendices

Appendix 8-F: Reptiles and Common Toad

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	EN010154
Application Document Reference	EN010154/APP/6.3
Author	Fosse Green Energy Limited

Version	Date	Issue Purpose
Rev 1	18 July 2025	DCO Submission

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1. Introduction

1.1 Background

1.1.1 This report forms a technical appendix to the Environmental Statement (ES), specifically to accompany **Chapter 8: Ecology and Nature Conservation** of this ES **[EN010154/APP/6.1]**. The report characterises the baseline conditions for reptiles and Common Toad (*Bufo bufo*) within the DCO Site Boundary of the Fosse Green Energy project, hereafter referred to as the Proposed Development, reporting on a desk study and the results of surveys undertaken in the field.

1.1.2 Further information on the Proposed Development is included within **Chapter 3: The Proposed Development** of this ES **[EN010154/APP/6.1]**.

1.2 Aims and Objectives

1.2.1 The aim of this appendix is to determine the presence and distribution of reptiles and Common Toad (also termed as herpetofauna within this report) within the DCO Site Boundary.

1.2.2 The objectives, therefore, are to:

a. Review existing ecological data to identify any records of reptiles and Common Toad within the Study Area (see **Section 3.1**); and

b. Identify the presence of reptiles and Common Toad within the DCO Site Boundary (see **Section 3.1**).

1.2.3 Combined, this is being used to determine the:

a. Biodiversity importance of the DCO Site Boundary for reptiles and Common Toad; and

b. Potential impacts of the Proposed Development on reptiles and Common Toad and any required mitigation (as presented in **Chapter 8: Ecology and Nature Conservation** of this ES **[EN010154/APP/6.1]**).

2. Relevant Legislation and Policy

2.1 Legislation

2.1.1 The four reptile species that could be found within or in the vicinity of the DCO Site Boundary (based on habitat and, or geographical range) are Adder (*Vipera berus*), Grass Snake (*Natrix helvetica*), Common Lizard (*Zootoca vivipara*) and Slow Worm (*Anguis fragilis*). All four species are declining in distribution both nationally and locally (Ref 1) and are afforded partial protection under the Wildlife and Countryside Act 1981 (as amended) (WCA) (Ref 2), which makes it an offence to intentionally kill or injure a reptile and also to sell, offer or expose for sale such species.

2.1.2 In accordance with the WCA, care must be taken to ensure that reptiles are not killed or injured as a result of the Proposed Development. Additionally, Sand Lizard (*Lacerta agilis*) and Smooth Snake (*Coronella austriaca*) are both fully protected under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations) (Ref 3). However, neither of these species has been, or is likely to be recorded at or near to the DCO Site Boundary due to their restricted ranges in the UK.

2.1.3 Three species of amphibian, Great Crested Newt (*Triturus cristatus*), Pool Frog (*Pelophylax lessonae*) and Natterjack Toad (*Epidalea calamita*) are also protected under the WCA (Ref 2) and the Habitats Regulations (Ref 3) from intentional killing and injury, which also extends to protection of their habitats (including ponds and key foraging areas). With the exception of Great Crested Newt (that is covered in **Appendix 8-E: Great Crested Newt** of this ES **[EN010154/APP/6.3]**), neither Pool Frog or Natterjack Toad have been, or are likely to be recorded at or near to the DCO Site Boundary due to restricted ranges in the UK.

2.1.4 There are no licencing provisions within the WCA (Ref 2) for development activities affecting reptiles or Common Toad. However, developers are expected to take adequate precautions to avoid breaches of the legislation, including undertaking adequate surveys, using suitably qualified ecologists, and adopting appropriate mitigation to avoid or minimise the risk of killing or injuring reptiles.

2.2 Species of Principal Importance

2.2.1 In England, the Natural Environment and Rural Communities Act 2006 (NERC) (Ref 4) requires the Secretary of State for Environment, Food and Rural Affairs to publish and maintain a list of habitats and species that are of 'principal importance' for the purpose of conserving biodiversity and are regarded as conservation priorities under the UK Biodiversity Framework (Ref 5), which supersedes the UK Biodiversity Action Plan (UKBAP) (Ref 6). The UKBAP was launched in 1994 and established a framework and criteria for identifying species (and habitat types) of conservation concern.

2.2.2 Therefore, in addition to the above legislation, a ten species of herpetofauna are listed as being Species of Principal Importance (SPI) for conservation in England under Section 41 of NERC (Ref 4). Of the herpetofauna likely to occur within or near to the DCO Site Boundary, Common Lizard, Grass Snake, Slow Worm, Adder and Common Toad are listed under Section 41 of NERC. These species are of material consideration during the planning process and are used to guide decision-makers such as public bodies (including local and regional authorities) in implementing their duty under Section 40 of NERC (Ref 4).

2.3 Local Priority Species

2.3.1 The Proposed Development is located within the county of Lincolnshire. Formerly, the Lincolnshire Biodiversity Action Plan (3rd Edition) (Lincolnshire BAP) (Ref 8) provided context to inform identification of threatened or uncommon species of local relevance, alongside priorities for conservation and enhancement targeted at a local level. However, under the Environment Act 2021 (Ref 9), BAPs are being replaced by Local Nature Recovery Strategies (LNRSs), which are a system of spatial strategies for nature which will support delivery of biodiversity net gain (BNG) and provide more focused action for nature recovery. Whilst this is still being developed for Lincolnshire and with no specific habitat or species plans currently in place, this report references those species formerly included on the Lincolnshire BAP.

2.3.2 Of the herpetofauna likely to occur within or near to the DCO Site Boundary, Common Lizard, Grass Snake, Slow Worm, Adder and Common Toad are listed on the Lincolnshire BAP (Ref 8), but with no specific action plans for conserving these species within the county.

3. Methods

3.1 Characterising the Baseline

3.1.1 Within this report, the following terminology is used when referring to the geographic areas within which assessments were made:

a. Study Area – the area within which the Proposed Development will be located and a 2km radius (as defined in **Chapter 8: Ecology and Nature Conservation** of this ES **[EN010154/APP/6.1]**) which was subject to the collection of background information, e.g. desk study data to supplement the findings of the survey work.

b. Zone of Influence (ZoI) – the area over which reptiles or Common Toad may be affected by the Proposed Development which, using the criteria below and proportionate to the Proposed Development's impacts, is likely to be within the DCO Site Boundary itself. Through review of likely impacts of the Proposed Development and results of the desk study, the scope of field surveys was then defined. The ZoI was based on the following criteria, proportionate to the Proposed Development's potential to impact on each feature:

   i. the nature of the Proposed Development (a solar farm, and associated infrastructure), associated project activities, and the potential for effects at all development stages (construction, operational (including maintenance) and decommissioning);

   ii. the nature of the current land use (predominantly arable) and habitats in the vicinity (majority being arable), their connectivity (e.g. through hedgerows, ditches or grassland margins), and how they may be used by different species;

   iii. the presence and assemblages of species which may be in the area, identified during the desk study and based on the location of the Proposed Development; and

   iv. the different habits, behaviours and preferences of reptiles and Common Toad that could be affected, and how these vary both spatially and seasonally.

c. Survey Area – the area within which field survey work was undertaken and is largely synonymous with the DCO Site Boundary.

3.2 Desk Study

3.2.1 A desk study was undertaken as part of the Preliminary Ecological Appraisal (PEA) in 2024. This desk study obtained records of reptiles and Common Toad within the Study Area from Lincolnshire Environmental Records Centre (LERC), and this was sufficient in determining the presence or likely absence of reptiles and Common Toad occurring within the ZoI.

3.2.2 Only records of reptiles and Common Toad up to ten years from the data request date were considered within the assessment, as any records older than ten years are unlikely to be still representative of presence in the local area.

3.3 Field Survey

Habitat Suitability Assessment

3.3.1 A Habitat Suitability Assessment (HSA) was undertaken using desk-based study data, which included a review of mapped habitat data and aerial imagery to determine the habitats most likely to support herpetofauna. This information was used to refine the Survey Area, which was defined using the following characteristics for assessing the potential suitability of habitat for reptiles and Common Toad:

a. location in relation to species range (taken from desk study data);
b. vegetation structure;
c. insolation (sun exposure) for reptiles;
d. aspect;
e. topography;
f. connectivity to nearby good quality habitat;
g. refuge opportunity;
h. hibernation potential;
i. disturbance; and
j. egg-laying site potential (Grass Snake and Common Toad).

3.3.2 Using the Phase 1 Habitat map and aerial imagery, each broad habitat type or discrete area was graded (poor, good or exceptional) for its potential to support reptiles and Common Toad, based on the above characteristics and these, alongside a description of these definitions, are presented in Table 1.

Table 1: Habitat suitability assessment

Habitat Grading	Description
Poor	Habitat which is unfavourable, based on most of the habitat assessment characters listed above or is limited in size and highly isolated from other areas of suitable habitat.
Good	Habitat which is favourable or sub-optimal for many of the habitat assessment characters listed above or is sub-optimal for some of the characters and has good connectivity with areas of more suitable habitat.
Exceptional	Habitat which is favourable, based on most of the habitat assessment characters listed above.

Survey Area

3.3.3 Using the HSA, the Survey Area that was subject to refugia surveys (see below) included any suitable terrestrial habitat, graded as good or exceptional, for reptiles or Common Toad within the DCO Site Boundary, *e.g.*, ephemeral / short perennial vegetation, woodland edges and semi-improved grassland and that had the potential to be permanently impacted (e.g. directly, through habitat loss) as a result of the Proposed Development. Surveys of aquatic habitats also took place from the edges of water bodies within the DCO Site Boundary.

Determining Presence / Absence

3.3.4 The field surveys utilised the following survey methods within the Survey Areas to record the presence or absence of reptiles and Common Toad:

a. aquatic habitat surveys – visual observations of amphibians in water bodies, including tadpoles or spawn;

b. terrestrial habitat surveys – refugia surveys (see from **Section 3.3.9**); and

c. visual observation of banks and, or other suitable terrestrial habitat – basking locations and habitat with foraging potential.

Aquatic Habitat Surveys

3.3.5 Within aquatic habitats found within the DCO Site Boundary, any observations of Common Toad were made alongside undertaking surveys for Great Crested Newt. Surveys took place from the edge of each surveyed water body, without entering the water, and involved walking steadily along the edge of the water body to make observations of Common Toad in the water or signs of Common Toad presence (such as tadpoles or spawn).

Terrestrial Habitat Surveys

3.3.6 Five discrete terrestrial habitat survey areas (see **Table 2**) were identified within the DCO Site Boundary during the HSA as being 'good' terrestrial habitat for reptiles and were subject to further survey. There were no exceptional areas of habitat anywhere within the DCO Site Boundary and areas of poor habitat were excluded from the survey.

3.3.7 The locations of these five Survey Areas within the DCO Site Boundary are presented in **Figure 8-F-1: Reptile and Common Toad Survey Locations & Desk Study Records** in **Annex A** of this appendix **[EN010154/APP/6.3]**.

3.3.8 Surveys of terrestrial habitats within the DCO Site Boundary, identified using the HSA (see **Section 3.3.1**), were undertaken in May, August and September 2023 in Survey Areas 1 to 4 and May to June 2024; and August to September 2024 in Survey Area 5. All surveys were undertaken using artificial refugia and in accordance with Froglife's Advice Sheet 10 for Reptile Surveys (Ref 10) and Natural England's Standing Advice Sheet for Reptiles (Ref 11). This method is also useful in detecting Common Toad, which often use refugia sheets for shelter.

3.3.9 Artificial refugia, in the form of sheets of bitumen roofing felt and corrugated tin measuring approximately 0.5m by 0.5m , were placed in likely basking spots for reptiles within the Survey Areas. Such spots included unshaded patches of vegetation next to cover, grassland and areas adjacent to potential hibernation sites such as piles of rubble, logs, rabbit burrows and near vegetation waste such as arisings from grass cuttings and wood chips.

3.3.10 A total of 94 refugia sheets were distributed across the Survey Areas. The numbers of refugia sheets placed in each Survey Area are presented in **Table 2**.

Table 2: Number of artificial refugia placed within each discrete Survey Area

Survey Area (see Figure 8-F-1)	Survey Area (hectare)	Number of Artificial Refugia	Density of Refugia per hectare
Survey Area 1	0.34	15	44
Survey Area 2	0.38	13	34
Survey Area 3	0.11	10	90
Survey Area 4	0.23	15	65
Survey Area 5	1.92	41	21

3.3.11 The density of the sheets was based on guidance from Froglife (Ref 10), which recommends between 5 and 10 sheets per hectare. More sheets were used per hectare than the recommended number from the guidance document to account for any sheets being lost or damaged due to unforeseen circumstances (*e.g.*, unplanned mowing of a grassland which could destroy felt sheets).

3.3.12 Following placement of sheets in each Survey Area, the artificial refugia were left *in situ* for up to two weeks to settle in and were then checked by suitably qualified and experienced AECOM ecologists on seven separate occasions. They were removed from the Survey Areas on the seventh visit.

3.3.13 Reptile activity is greatly influenced by weather conditions, with reptiles most likely to use artificial refugia in temperatures of between 9 °C and 18 °C (Ref 10) and in hazy or intermittent sunshine with light winds (Ref 12). The optimal survey period for reptiles (as recommended in the Herpetofauna Worker's Manual (Ref 12)) is April, May and September. Reptiles are also active in June, July and August. However, they will need to spend less time basking so may be more difficult to find.

3.3.14 The dates of reptile surveys and weather conditions during surveys of Survey Areas 1 to 4 are presented in **Table 3**, each Survey Area being visited on seven occasions.

Table 3: Survey dates and weather conditions of Survey Areas 1 to 4

Survey Visit	Date / AM or PM	Temperature range	Cloud Cover (%)	Dry / wet	Ground Conditions
1	10/05/2023 PM	14°C - 12°C	60	Dry	Wet
2	11/05/2023 AM	13°C - 16°C	40	Dry	Dry
3	15/05/2023 PM	15°C - 13°C	40	Dry	Dry
4	22/05/2023 PM	18°C - 16°C	0	Dry	Dry
5	23/05/2023 AM	15°C - 18°C	40	Dry	Dry
6	23/08/2023 AM	16°C - 20°C	40	Dry	Dry
7	04/09/2023 PM	20°C - 17°C	0	Dry	Dry

3.3.15 The dates of reptile surveys and weather conditions during surveys of Survey Area 5 are presented in **Table 4**.

Table 4: Survey dates and weather conditions of Survey Area 5

Survey Visit	Date / AM or PM	Temperature range	Cloud Cover (%)	Dry / wet?	Ground Conditions
1	21/05/2024 AM	15°C - 16°C	40	Dry	Dry
2	30/05/2024 AM	14°C - 15°C	90	Dry	Wet
3	03/06/2024 AM	16°C - 17°C	80	Dry	Dry
4	04/06/2024 AM	15°C - 16°C	50	Dry	Dry
5	22/08/2024 AM	18°C - 19°C	80	Dry	Dry
6	17/09/2024 PM	15°C - 16°C	40	Dry	Dry
7	19/09/2024 AM	16°C - 17°C	80	Dry	Dry

3.3.16 Where any reptiles were found, the age of each reptile was also recorded using the Amphibian and Reptile Conservation Trust (ARC) Reptile Identification Guide (Ref 13).

Visual Inspections

3.3.17 Whilst undertaking other ecological surveys across the DCO Site Boundary, any incidental observations of reptiles were recorded, and searches were made in order to 'spot' basking Common Lizards. This species will often sit on top of grass tussocks, debris and felts and will quickly move from sight upon disturbance. Consequently, spotting this species can be more effective than searching under artificial refugia. Common Lizards are often very territorial reusing favourite basking sites (Ref 14). Once these sites are known, spotting can become a relatively successful method of recording Common Lizard.

3.3.18 Any existing hibernation sites within a Survey Area, such as rubble piles or wood piles, were, where possible, also searched for herpetofauna during checks of artificial refugia.

3.4 Population Assessment

3.4.1 Where reptiles are present, estimating population sizes of reptiles can be undertaken using guidance within Froglife's advice sheet Number 10 (Ref 10). This advice sheet provides a simple means of evaluating a species population as 'low', 'good', or 'exceptional' on the basis of the maximum number of adult reptiles (of each species) recorded during a single visit (see **Table 5**).

Table 5: Population estimates of reptiles (taken from Froglife, 1999 (Ref 10))

Species	Low Population	Good Population	Exceptional Population
Adder	<5	5-10	>10
Grass Snake	<5	5-10	>10
Common Lizard	<5	5-20	>20
Slow Worm	<5	5-20	>20

3.4.2 This method of population size estimate (as presented in **Table 5**) uses the assumption of a reptile survey using a density of ten reptile sheets per hectare. However, it can be difficult to determine a population size through interpretation of data using peak counts of reptiles and densities of sheets. Therefore, an average score across all survey visits was used to provide a more robust estimate of the population size of each reptile species present within suitable on-site habitat.

3.4.3 There is no published guidance on assessing the population of Common Toad within a site and therefore professional judgement has been used when evaluating the importance of the DCO Site for this species.

3.5 Biodiversity Importance

3.5.1 An essential prerequisite step to allow ecological impact assessment of the Proposed Development, as presented in **Chapter 8: Ecology and Nature Conservation** of this ES **[EN0010154/APP/6.1]**, is an evaluation of the relative biodiversity importance of the DCO Site Boundary for reptiles and Common Toad. This is necessary to set the terms of reference for the subsequent ecological impact assessment.

3.5.2 The method of evaluation that was utilised has been developed with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (Ref 15). This gives guidance on scoping and carrying out environmental assessments and places appraisal in the context of relevant policies and at a geographical scale at which feature matters (i.e., international, national, regional, county, district, local or site). Data received

through desk study and field-based surveys were used to identify the importance of the species addressed in this report. Professional judgement was also applied, where necessary. Relevant published national and local guidance and criteria has been used, where available, to inform the assessment of biodiversity importance and to assist consistency in evaluation.

3.6 Assumptions and Limitations

Desk Study

3.6.1 The aim of the desk study was to help characterise the baseline context of the Proposed Development and provide valuable background information that would not be captured by site surveys alone. Information obtained during the course of the desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for reptiles or Common Toad does not necessarily mean that the species does not occur in the study area. Likewise, the presence of records of species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Proposed Development.

3.6.2 Note that some desk study records have a low resolution and were given to the nearest 10km grid square, therefore it is uncertain as to whether they are within or outside the DCO Site Boundary.

Field Survey

3.6.3 Sufficient information has been gathered to provide a representative sample of the presence of reptiles and Common Toad within the DCO Site Boundary to inform the assessment within **Chapter 8: Ecology and Nature Conservation** of this ES **[EN0010154/APP/6.1]**.

4. Results

4.1 Desk Study

4.1.1 Within the ten years prior to 2023, the desk study returned 129 records of reptiles within 2km of the DCO Site Boundary. These were:

a. Forty-nine were of Common Lizard, the closest identifiable record (due to the resolution of the records received) being approximately 760m from the DCO Site Boundary. However, 22 records may fall within the DCO Site Boundary but are not possible to confirm due to the low resolution of some records. Survey data will therefore be used to confirm the presence or absence of Common Lizard within the DCO Site Boundary;

b. Seventy-six were of Grass Snake, the closest identifiable record (due to the resolution of the records received) approximately 205m from the DCO Site Boundary. However, 66 records potentially may fall within the DCO Site Boundary, but are not possible to confirm due to the low resolution of some records. Survey data will therefore be used to confirm the presence or absence of Grass Snake within the DCO Site Boundary.

c. Four records were of Slow-worm, all of which are of a low resolution and therefore it is not possible to confirm whether they are within or outside of the DCO Site Boundary. Survey data will therefore be used to confirm the presence or absence of Slow-worm within the DCO Site Boundary

4.1.2 The locations of those records of reptiles relevant to the DCO Site Boundary, are presented in **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**. There were no records of Adder.

4.1.3 Additionally, there were 15 records of Common Toad returned from outside of the DCO Site Boundary, the closest of which is approximately 530m from the DCO Site Boundary. The locations of records of Common Toad, relevant to the DCO Site Boundary, are presented in **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**.

4.2 Field Survey

4.2.1 Four juvenile Grass Snake and a single adult Grass Snake were recorded during the refugia surveys undertaken in May and September 2023 and between May and September 2024. Furthermore, one adult Grass Snake and one dead Grass Snake (see **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**) were recorded within the DCO Site Boundary during other ecological surveys. The date, location, species and number of individuals of Grass Snake recorded during the refugia surveys are presented in **Table 6** and the locations of all Grass Snake recorded are presented in **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**.

4.2.2 No other reptiles were recorded within the DCO Site Boundary.

4.2.3 Five Common Toad were recorded during the refugia surveys carried out in May and September 2023 and between May and September 2024. The date, location, species and number of individuals recorded during the refugia surveys are presented in **Table 6** and the locations are presented in **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**. No Common Toad were recorded during any aquatic surveys undertaken.

Table 6: Reptiles and Common Toad recorded within the Survey Area

Species	Survey Area	Species	Number
10 May 2023	Survey Area 2	Common Toad	1
	Survey Area 4	Grass Snake (juvenile)	1
11 May 2023	Survey Area 1	Common Toad	1
	Survey Area 2	Common Toad	1
23 May 2023	Survey Area 1	Common Toad	1
	Survey Area 2	Common Toad	1
4 September 2023	Survey Area 2	Grass Snake (juvenile)	1
30 May 2024	Survey Area 5	Grass Snake (juvenile)	1
3 June 2024	Survey Area 5	Grass Snake (juvenile)	1
22 August 2024	Survey Area 5	Grass Snake (adult)	1

5. Evaluation

5.1 Reptiles

5.1.1 The desk study identified the presence of three reptile species (Common Lizard, Grass Snake and Slow-worm) within 2km of the DCO Site Boundary and field surveys were used to confirm the presence of low numbers (<5) of Grass Snake within the DCO Site Boundary.

5.1.2 Grass Snake was recorded within semi-improved grassland surrounding a waterbody in Survey Area 4 (see **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**), within poor semi-improved grassland in Survey Area 2 (see **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**) and within semi-improved neutral grassland along the banks of the river Witham in Survey Area 5 (see **Figure 8-F-1** in **Annex A** of this appendix **[EN010154/APP/6.3]**). Therefore, a low population of Grass Snake (see **Table 5**) would qualify as being of Local importance only and a precautionary approach to mitigation will be implemented within this area.

5.1.3 The field surveys concluded that Common Lizard and Slow-worm are absent from the DCO Site Boundary.

5.1.4 No other reptile species were recorded within the DCO Site Boundary or returned by the desk study.

Common Toad

5.1.5 The desk study returned no records of Common Toad within the DCO Site Boundary and 19 records of Common Toad within 2km of the DCO Site Boundary. Field surveys identified in two areas of the DCO Site Boundary, a single Common Toad on each occasion.

5.1.6 No other amphibians (see **Appendix 8-E: Great Crested Newt** of this ES **[EN010154/APP/6.3]**) were recorded within the DCO Site Boundary.

5.1.7 Whilst no published guidance exists on assessing the population of amphibians within a site, using professional judgement and in consideration of the sedentary nature of amphibians and likely presence in the wider area, the DCO Site Boundary supports a population of site importance for Common Toad.

6. Conclusions

6.1.1 The primary purpose of this report is to provide an assessment of the presence or absence and distribution of reptiles and Common Toad and their biodiversity importance within the ZoI to inform **Chapter 8: Ecology and Nature Conservation** of this ES **[EN010154/APP/6.1]**. An assessment of potential impacts (considering embedded mitigation), any additional mitigation and residual effects on Grass Snake and Common Toad has been undertaken and is included within **Chapter 8: Ecology and Nature Conservation** of this ES **[EN010154/APP/6.1]**.

6.1.2 The surveys undertaken identified the presence of low numbers of Grass Snake within the DCO Site Boundary, which was restricted to habitats of poor semi-improved grassland and semi-improved neutral grassland, amounting to <3ha of the DCO Site Boundary (<1% of the total area). Adder, Slow-worm and Common Lizard were absent from the DCO Site Boundary or very rare and undetected. Additionally, low numbers of Common Toad were recorded within two discrete areas of the DCO Site Boundary.

6.1.3 Based on the information presented within this appendix, the Proposed Development will be able to embed sufficient mitigation measures, formalised through a Construction and Environmental Management Plan (CEMP), to ensure that reptiles and Common Toad occurring within the DCO Site Boundary are not negatively impacted upon, in accordance with legislation, policy and guidance as described in **Section 2** of this appendix.

7. References

Ref 1 Russell, L. and Foster, J. (2021). Establishing a baseline dataset for widespread reptiles in England to inform better management of development impacts. ARC report to Natural England. Amphibian and Reptile Conservation Trust, Bournemouth.

Ref 2 His Majesty's Stationery Office (HMSO). (1981). Wildlife and Countryside Act 1981. HMSO, London. [online] Available at: https://www.legislation.gov.uk/ukpga/1981/69 [Accessed February 2025]

Ref 3 HMSO. (2018). The Conservation of Habitats and Species Regulations 2017 (as amended). HMSO, London. [online] Available at: http://www.legislation.gov.uk/uksi/2017/1012/contents/made. [Accessed February 2025]

Ref 4 HMSO. (2006). Natural Environment and Rural Communities Act 2006. HMSO, London. [online] Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents. [Accessed February 2025]

Ref 5 JNCC on behalf of the Four Countries' Biodiversity Group. (2024). UK Biodiversity Framework. [online] Available at: https://data.jncc.gov.uk/data/19a729f6-440e-4ac6-8894-cc72e84cc3bb/uk-biodiversity-framework.pdf. [Accessed February 2025]

Ref 6 HMSO. (1994). Biodiversity: The UK Action Plan. [online] Available at: https://data.jncc.gov.uk/data/cb0ef1c9-2325-4d17-9f87-a5c84fe400bd/UKBAP-BiodiversityActionPlan-1994.pdf [Accessed February 2025]

Ref 7 Joint Nature Conservation Committee (JNCC) and Department for Environment, Food and Rural Affairs (Defra). (2012). UK Post-2010 Biodiversity Framework. Available at: http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf.

Ref 8 Lincolnshire Biodiversity Partnership. (2011). Lincolnshire Biodiversity Action Plan 2011-2020 (3rd edition). [online] Available at: https://www.nelincs.gov.uk/wp-content/uploads/2016/02/201110-LincolnshireBAP-3rd-edition.pdf [Accessed February 2025]

Ref 9 HMSO. (2021). Environment Act 2021. [online] Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted. [Accessed February 2025].

Ref 10 Froglife. (1999). Froglife Advice Sheet 10, Reptile Survey.

Ref 11 Natural England. (2023). Reptiles: surveys and mitigation for development projects. [online] Available at: https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences. [Accessed February 2025]

Ref 12 Gent, T. and Gibson, S. (2003). Herpetofauna Workers' Manual. Joint Nature Conservation Committee.

Ref 13 Amphibian and Reptile Conservation (ARC). (2016). Reptile Identification. [online] Available at: [redacted]

Ref 14 Beebee, T. and Griffiths, R. (2000). Amphibians and Reptiles. New Naturalist Library, Book 87. Collins, London.

Ref 15 Chartered Institute of Ecology and Environmental Management (CIEEM). (2018). Guidelines for Ecological Impact assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, version 1.3.

Annex A Figures

Figure 8-F-1: Reptiles and Common Toad Survey Locations & Desk Study Records

Revision: 0 Drawn: BF Checked: LL Approved: NS Date: 2025-07-16

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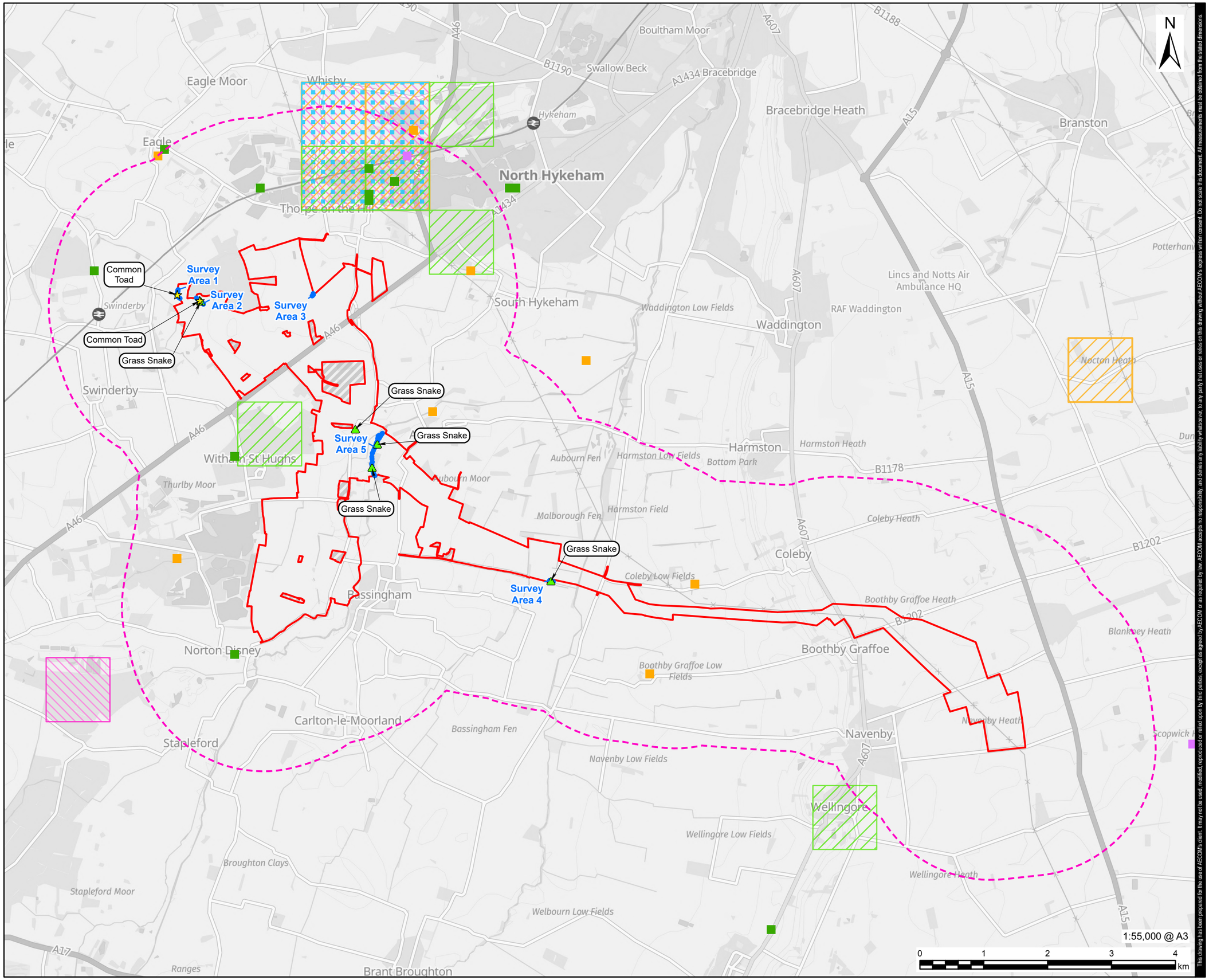

Fosse Green Energy

PROJECT

Fosse Green Energy

CLIENT

Fosse Green Energy Ltd

CONSULTANT

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LEGEND

- DCO Site Boundary
- Land not included in the DCO Site Boundary
- 2km Study Area
- Reptile Refugia

Reptile Presence

- Grass Snake
- Common Toad

Desk Study Records (*source: Greater Lincolnshire Nature Partnership*)

100m record resolution

- Common Toad
- Grass Snake
- Common Lizard

1km and 2km record resolution

- Common Toad
- Slow-worm
- Grass Snake
- Common Lizard

NOTES

LEGISLATION

Regulation 5(2)(a) Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.

ISSUE PURPOSE

DCO Submission

FIGURE TITLE

Reptile and Common Toad Survey Locations

FIGURE NUMBER	REV.
Figure 8-F-1	01

DOCUMENT REFERENCE

EN010154/APP/6.3.