

JAMES BLAKE

A S S O C I A T E S

Reptile Mitigation Strategy

for

**Meridian Gate - Phase 1 & 2,
North of Newmarket Road,
Royston**

on behalf of

Vistry Central Home Counties

March 2025

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Disclaimer

James Blake Associates Ltd have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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CONTENTS

1. INTRODUCTION	4
Background	4
Previous Ecological Survey & Planning Consent.....	5
2. PROTECTION AND MITIGATION FOR LEGALLY PROTECTED SPECIES	6
3. RESULTS	ERROR! BOOKMARK NOT DEFINED.
4. METHODOLOGY	7
5. CONCLUSION.....	10
6. REFERENCES	11
7. APPENDICES.....	12
Appendix A: Habitat Map	12
Appendix B: Map showing area sensitive for reptiles.....	13
Appendix C: Open Space Programme.....	14
Appendix D: Reptile Legislation and Ecology in the United Kingdom.....	15

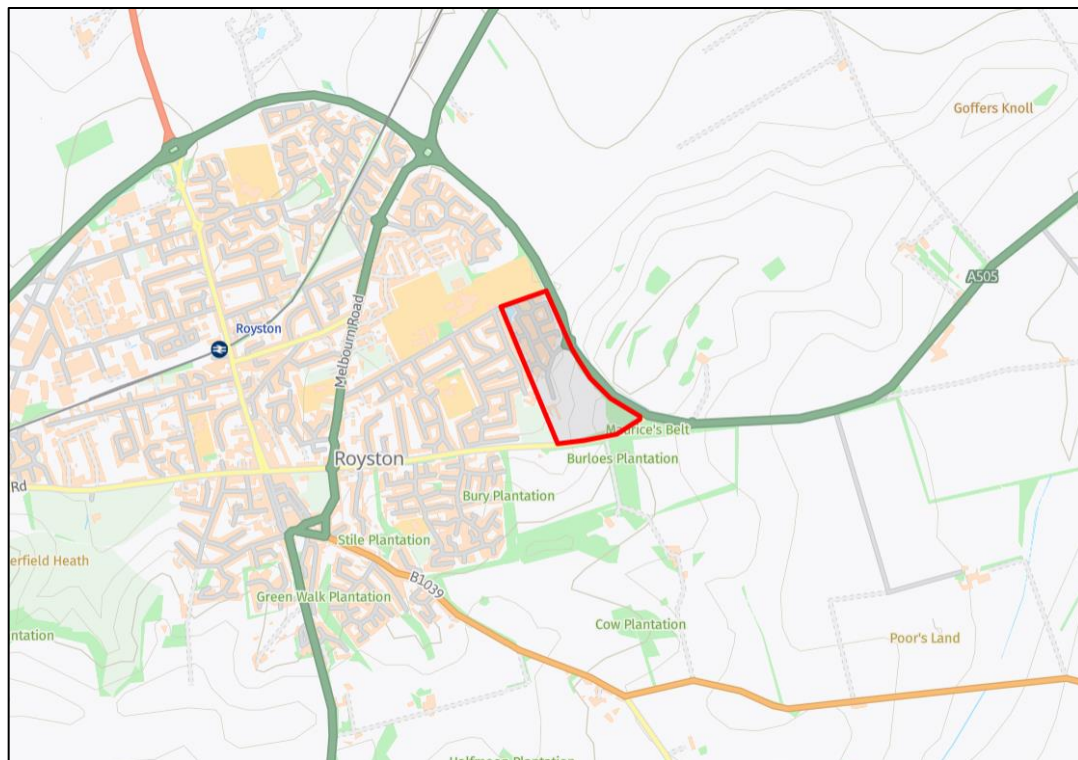
1. Introduction

Background

- 1.1 James Blake Associates Ltd. (JBA) were commissioned by Vistry Central Home Counties to design a Reptile Mitigation Strategy for land at Meridian Gate, Phase 1 & 2, North of Newmarket Road, Royston. Ordnance Survey National Grid Reference; TL 36878 41208, taken from the centre of site.
- 1.2 The proposed development has been granted outline planning permission (planning application ref: 14/02485/1) for residential development and community open space with new access onto the A505.

Site description

- 1.3 The site is located to the west of the A505 and north of Newmarket Road, in Royston, Hertfordshire, and as a whole is approximately 17 hectares in size (see Figure 1).
- 1.4 The Application Site pre-development was 'dominated by one large arable field, with woody features on two boundaries (east and south), with a hedgerow to the west. Newmarket Road forms the southern boundary.' (Green Environmental Consultants, 2014).
- 1.5 Site habitats included: arable farmland, woody boundaries including elm trees, and a small plantation woodland and weedy rank grass margins. The site was regularly used by people and dogs and therefore disturbed.
- 1.6 The development site consists of residential dwellings with associated hardstanding, public open space (phase 1) vegetated gardens and associated hardstanding (phase 2) as well as an active construction site (phase 3).

Figure 1: Site location

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Previous Ecological Survey & Planning Consent

- 1.7 A Preliminary Ecological Assessment (PEA) was undertaken by Green Environmental Consultants (2014) which identified 'numerous records of Viviparous Lizards from grassy road verges (in the desk study) and it is possible that reptiles such as lizards have survived within the site's grassy verges (of the site) especially on the eastern side, and possibly the wide western field margin'.
- 1.8 A full reptile presence / likely absence survey was undertaken by Green Environmental Consultants Limited in 2016 and in 2017 to determine whether reptiles were utilising the site. The 2016 survey identified a low population of common lizard however the 2017 survey identified no reptiles.

2. Protection and mitigation for legally protected species

Overview

- 2.1 All UK reptiles are afforded legal protection under the Wildlife and Countryside Act (WCA) 1981 (as amended) (Appendix D). It is therefore an offence to intentionally or recklessly kill or injure a reptile or sell/attempt to sell any part of the species, alive or dead.

Site Suitability Assessment

- 2.2 The site was assessed in consideration to reptiles (Green Environmental Consultants, 2014) and it was concluded that lizards may be present within the site's tussocky grassy verges especially on the eastern side between the A505 and the tree line, and possibly the wide western field margin (habitat map provided in Appendix A with sensitive area for reptiles shown in Appendix B).
- 2.3 Both of these tussocky grass verges have been retained on the development. Furthermore, the retained woodland, tree lines and additional planting provides further suitable habitat for reptiles on site.

Appropriate Reptile Mitigation

- 2.4 As mentioned in paragraph 1.8 above, a full presence / likely absence survey was carried out in 2016 and 2017 by Green Environmental Consultants Limited. A total of 40 mixed bituminous felt and carpet tiles were deployed in a density exceeding the minimum guideline requirements in areas likely to be favoured by reptiles. Refugia were laid in groups spread out in open spaces between the tree line and the road on the eastern side of the site, and along the other (field) side of the tree line to gain afternoon sun warmth. A further set was laid on the western field verge. In 2016 some refugia were laid on the northern field boundary (south facing) but this was found to be futile and not repeated. In the 2017 survey, the refugia were laid out in early June, with the final survey being undertaken on 3rd July.
- 2.5 The 2016 survey identified a low population (maximum count of 3) of common lizard on three consecutive visits. All records were from the same group of mats located in the grass strip between the A505 and the tree line. The animal seen on 20th and 22nd May was believed to be the same animal as it could be identified by damage to its tail.
- 2.6 No reptiles were recorded in the 2017 survey. This was thought to be due to the 'change in the vegetation over a period of a year, reducing the number of open areas suitable for basking and hunting, and the extremely hot and/or wet spring' (Green Environmental Consultants, 2017).
- 2.7 It was concluded that, given the very small numbers found, a full scale trapping and translocation was not required. It was considered possible to retain the common lizards on the site without the need to translocate them to an alternative location.

3. Methodology

Overview

3.1 The mitigation measures will be implemented in two phases, summarised below:

- **Development of the site:** Destructive search to relocate reptiles
- **Post-development of the site:** Long term management of suitable reptile habitat across the site.

3.2 Details of the mitigation measures that will be implemented during each phase are provided below.

General

3.3 A toolbox talk by a suitably qualified ecologist will be given to all site operatives prior to works being undertaken. This will include what reptiles look like, how to identify relevant species, why and how reptiles are protected, how to check an area for reptiles to commence works and what to do if a reptile is found during works.

3.4 Works will be undertaken when reptiles are active, typically from mid-March to September, although this is entirely dependent upon temperature and the arrival of both spring and autumn. Works will not be undertaken once night-time temperatures fall below 5°C.

3.5 If reptiles are found during the current construction phase of the development and any further construction activities, then any species found should be relocated to the retained receptor area along the western and eastern boundary.

Vegetation clearance

3.6 Vegetation clearance will be undertaken in the areas of suitable reptile habitat in a sequenced, staged manner. This will encourage reptiles to move outwards from newly strimmed areas of grass (which will provide little cover) towards the tree lines or of suitable habitat beyond the site boundary at the north or south of the site.

3.7 The grassland will be carefully strimmed using hand-held tools, such as brush-cutters, to a height of no less than 15cm above ground level. This will be carried out under the supervision of a suitably qualified ecologist, who will then perform a hand-search of the area to capture any remaining reptiles and move them to a receptor area. All works must be supervised by an Ecological Clerk of Works (ECOW) or undertaken by a suitably qualified ecologist. Reptiles will be promptly transferred after minimal handling to a container containing loose vegetation to

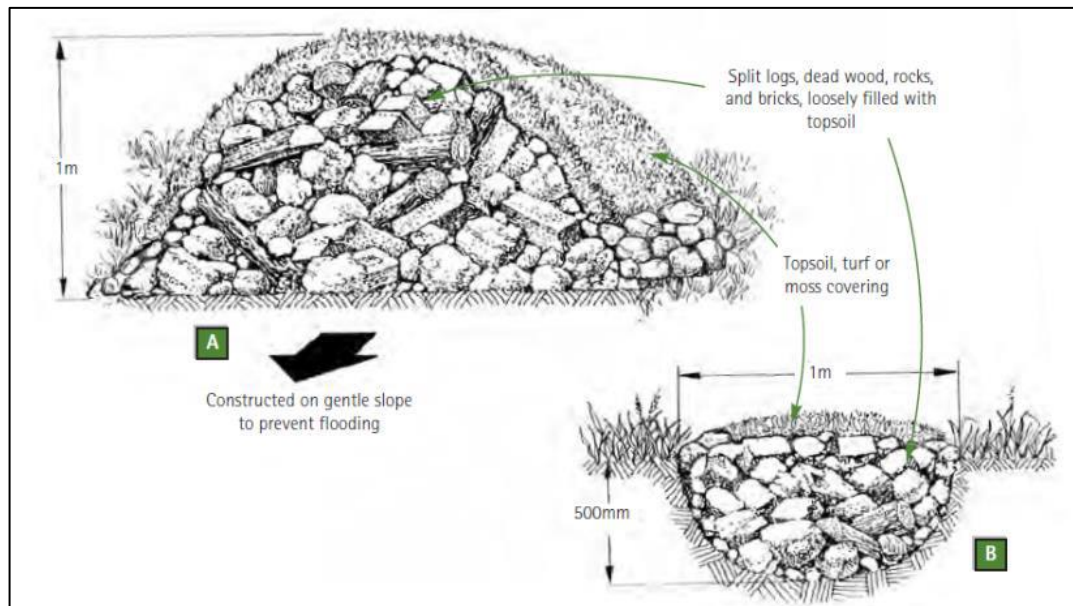
provide cover and minimise stress for captured animals during transport. Reptiles will be then transported to the retained grass strips on the eastern

Stage 4 – Destructive Search

- 3.8 To reduce residual risk of harm to any reptiles remaining within the site following habitat manipulation, a destructive search supervised by an ECoW will be undertaken.
- 3.9 The destructive search will begin with areas of suitable reptile habitat being stripped of vegetation using an excavator with a toothed bucket. Firstly, the top few centimetres of the ground will be excavated to expose reptiles sheltering in crevices just below the surface. The ECoW will be positioned to quickly capture any animals that are uncovered (Gent & Gibson, 2003). Any animals found will then be promptly relocated to the area of woodland and grass verge at the southeastern corner of the site.

Mitigation Post Development

- 3.10 The long-term management of the community open space adjacent to the woodland and grass verges will include the provision of reptile hibernacula. A minimum of three man-made hibernacula will be incorporated in these areas; two on the eastern boundary and one at the southern boundary adjacent to the woodland. This can be created simply and cheaply, with no maintenance requirements.
- 3.11 There are two suggested methods of creating reptile hibernacula; one is by covering a mound of loose rubble and logs with topsoil, and the other is by digging a hole and filling it in with these materials and then covering in topsoil (see Figure 1 below for dimensions). If possible, the materials to make the rubble within the reptile hibernacula should come from building materials on site, such as broken bricks. If any vegetation is to be cut on site, then larger logs should be kept and used within these features. Any topsoil being removed on site could be used to cover them over. Cut vegetation should be placed on top, followed by a layer of soil or upturned turves. Figure 2 below shows an example of hibernaculum design and specification.

Figure 2: An example design for reptile hibernaculum

- 3.12 Additional log/rubble piles could also be created around the site. These will not only provide safe hibernation locations but will also provide basking spots for reptiles.
- 3.13 The hibernacula should be checked on an annual basis to ensure that it has not degraded over time. Hibernacula should be replaced and/or additional materials grass/stones/logs added on top as necessary.
- 3.14 The woodland area at the southeast corner of the site (Appendix C) should also be managed to provide suitable habitat for reptiles. This habitat should include areas of networking long vegetation/scrub/hibernacular to provide sheltering and foraging habitat. Linkage with the adjacent habitats and hibernacular should enable reptiles to move between areas of differing aspect and find thermal niches to suit them at different times of day/year.

4. Conclusion

- 4.2 Through following the above mitigation process post development, it is considered that the potential impacts to reptiles resulting from the development will be fully mitigated in accordance with Section 9 of the WCA 1981 (as amended) 1981 (as amended) (Appendix C). With the development site managed with reptiles in mind, the ongoing conservation status of the local population will be favourable.

5. References

Froglife (1999) *Reptile Survey; an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10.

Gent, A.H, & Gibson, S.D., eds. (1998). *Herpetofauna workers' manual*. Peterborough, Joint Nature Conservation Committee.

Green Environmental Consultants (2014) Preliminary Ecological Appraisal of Land off Newmarket Road, Royston, Hertfordshire

Green Environmental Consultants (2017) Reptile Survey of Land off Newmarket Road, Royston, Hertfordshire

Herpetofauna groups of Britain and Ireland (1998). *Evaluating local mitigation/translocation programmes: Maintaining best practice and lawful standards*. HGBI advisory noted for amphibian and reptile groups (ARGs). [Online] Available at: <https://www.arguk.org/info-advice/scientific-and-technical-reports/4-evaluating-local-mitigation-translocation-best-practice-and-lawful-standards>

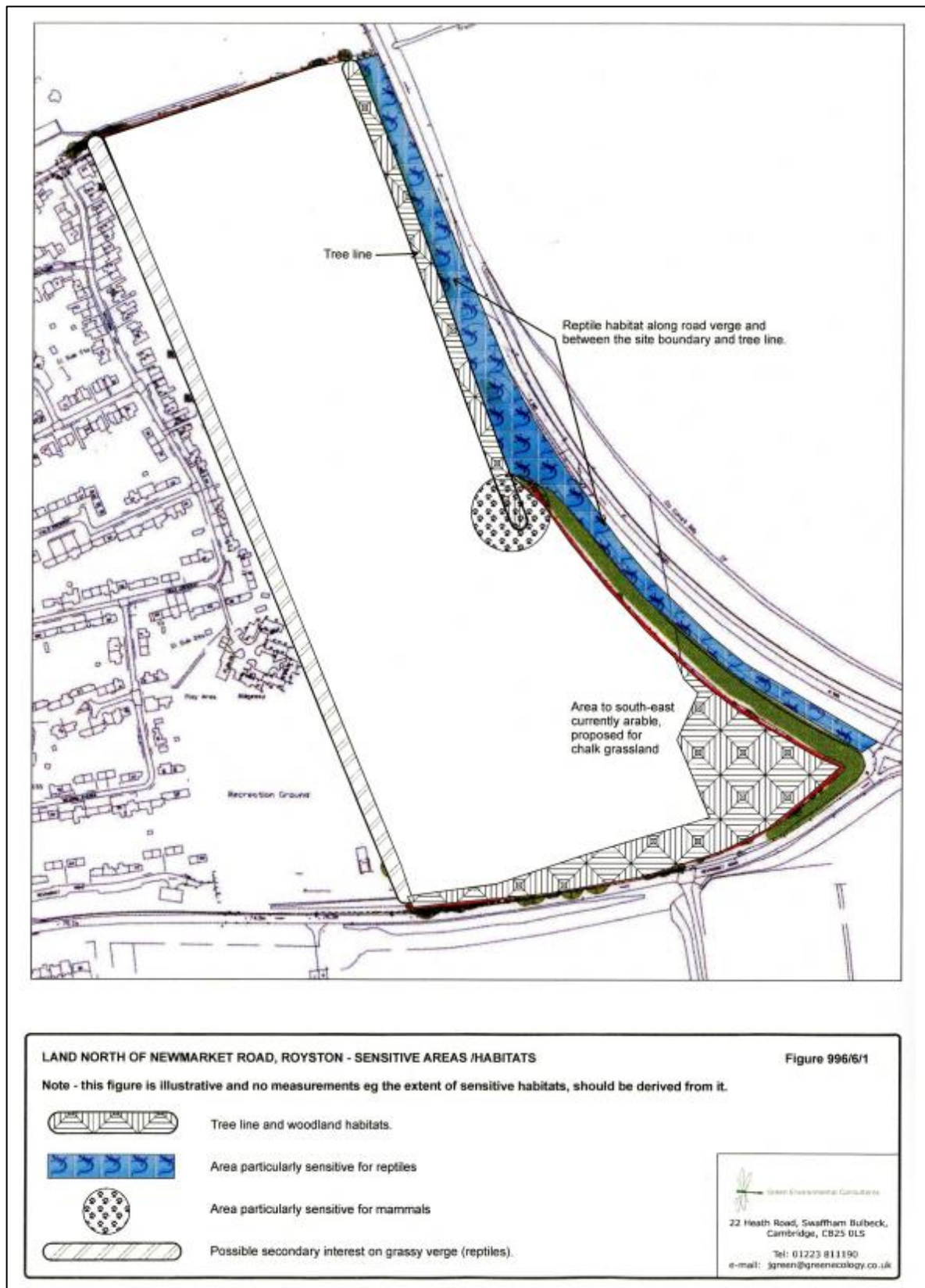
Web references

MAGIC: Designated area data downloaded from URL <http://www.magic.gov.uk.html>

6. Appendices

Appendix A: Habitat Map (Green Environmental Consultants, 2014)



Appendix B: Map showing area sensitive for reptiles (Green Environmental Consultants, 2018)

Appendix C: Open Space Programme



Appendix D: Reptile Legislation and Ecology in the United Kingdom

Ecology

Britain has six native reptile species distributed throughout the mainland. They are common lizard *Zootoca vivipara*, sand lizard *Lacerta agilis*, slow-worm *Anguis fragilis*, grass snake *Natrix natrix*, adder *Vipera berus* and smooth snake *Coronella austriaca*. Reptiles can be encountered in a wide range of habitats (except Sand Lizards) including heathland, rough and tussocky grassland, hedgerows, woodland edges, quarries, urban areas, road side verges, railway embankments and waste land areas, with the snake species also found in boggy areas. Sand lizards have more specific habitat requirements, such as heathland sites and sand dune systems. They all require access to sunny patches with access to ground cover.

Reptiles are active from early spring to late autumn and enter a period of hibernation when the temperature drops through the winter months. On the whole, reptiles are ectothermic, whereby internal body temperature is controlled by external environmental temperature. This can mean temperature regulation is achieved through basking and shuttling in and out of sunny spots, or by moving through temperature gradients in the vegetation/substrate absorbing heat directly through contact. The reliance on external heat sources means that good reptile habitat requires a variety of thermally and structurally diverse microhabitats, as the quality and variety of these microhabitats can affect the ability of reptiles to forage, disperse and ultimately breed successfully.

Invertebrates form the major part of common lizard and slow-worm diet, whilst grass snakes will often feed on amphibians and the adder will prefer lizards and small mammals.

Legislation

The legal information below is an interpretation of relevant legal statutes and has not been prepared by a legal professional and should not be treated as a definitive review but as a guide.

Common lizard, slow-worm, grass snake and adder are protected under the Wildlife and Countryside Act 1981 (as amended), where they are listed as a schedule 5 species, and therefore, parts of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 (CROW) strengthens their protection. It is offence to:

- Intentionally, or recklessly, kill or injure any of the above species, and/or;
- Sell, or attempt to sell, any part of the species, alive or dead.

If a proposed development is likely to have an impact on these reptiles the statutory nature conservation organisation must be consulted.

The rare Sand lizard and Smooth snake receive full protection under the Wildlife and Countryside Act (1981) Section 9. It is an offence:

- Deliberately kill, injure or capture any wild animal of protected species;
- Deliberately disturb wild animals of any protected species in such a way to be likely to significantly affect:
 - The ability of any significant groups of animals of that species to survive, breed, rear or nurture their young; or
 - The local distribution of that species.
- Recklessly disturb sheltering protected species or obstruct access to their resting place;
- Damage or destroys breed sites or resting places of such animals;
- Deliberately takes or destroys the eggs of such an animal;
- Possess or transport or any part of a protected species, unless acquired legally;
- Sell, barter or exchange any part of a protected species.

The maximum fine per offence is £5000 and if more than one animal is involved, the fine is £5000 per animal (Wildlife and Countryside Act 1981 Section 21) The Countryside and Rights of Way Act 2000 (CROW) amendment contains a provision for a custodial sentence of up to 6 months instead of, or in addition to, a fine. Along with a lengthy development delay until appropriate mitigation has been agreed and completed.

Natural Environment and Rural Communities Act 2006 (NERC) lists all reptile species as a species of principle importance under Section 41. Section 40 requires every public body in the exercising of its functions 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (all biodiversity and not just section 41 species and habitats); therefore making reptiles a material consideration in the planning process and requiring a detailed ecological survey before planning permission can be granted.