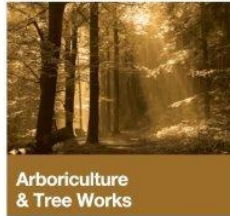




Landscape
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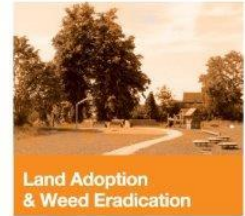
Landscape
Planning



Arboriculture
& Tree Works



Ecology
& Habitat Management



Land Adoption
& Weed Eradication

James Blake Associates Ltd

Reptile Survey

of

Land at Town House Road, Costessey, Norfolk

On behalf of

Taylor Wimpey Strategic Land

July 2017

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25 Years of Service, Value and Innovation

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Revision	Purpose	Originated	Checked	Authorised	Date
		AD	CA	JBA	July 2017
Job Number: JBA 16/141		 Title: Reptile Survey of Townhouse Road, Costessey, Norfolk			

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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Executive Summary

Reptile surveys of the land at Town House Road, Costessey, Norfolk were undertaken between the 30th May and 14th July 2017.

The aim of the surveys were to establish the presence or likely absence of reptiles across the site following Natural England approved guidelines. Froglife (1999).

No reptile species were recorded using the site during the survey period. Therefore, no mitigation or constraints to the development apply to the site, with respect to reptiles.

If development does not begin within three years, then the surveys should be updated to ensure that reptiles have not colonised the site in the interim.

1 Introduction

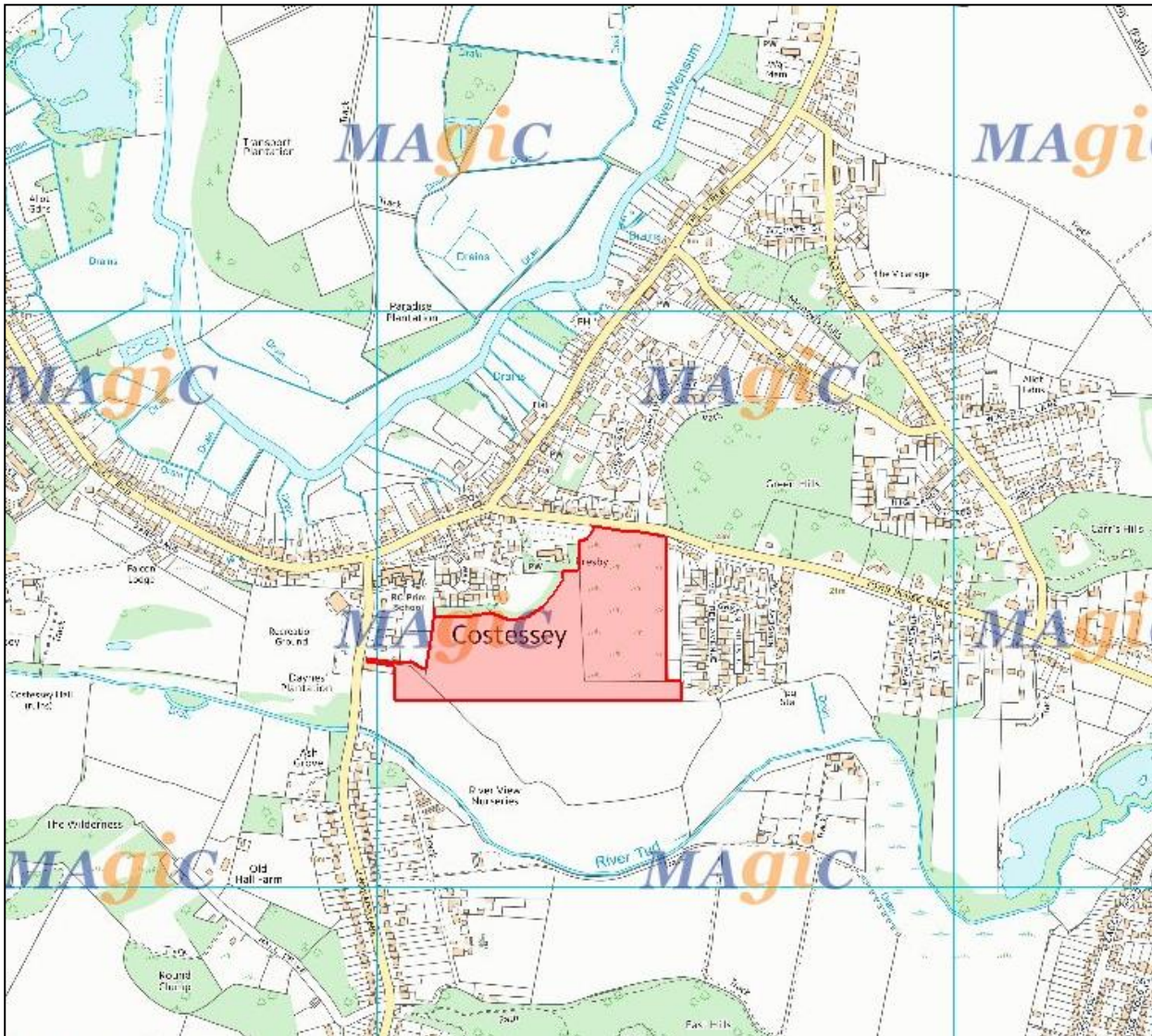
Background to the study

- 1.1 James Blake Associates Ltd were commissioned by Taylor Wimpey Strategic Land to carry out a reptile survey of land at Town House Road, Costessey, Norfolk.
- 1.2 The site has no designated conservation status assigned to it.
- 1.3 All reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981. Reptiles such as grass snakes, common lizards and slow worms are also species of principle importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, and are a material consideration under the National Planning Policy Framework (NPPF, 2012).

Site Description

- 1.4 The site was located to the south of Town House Road in the town of Costessey in Norfolk. Residential housing bordered the eastern boundary, with arable land to the south and west. To the north-west was a small wooded area surrounding a church. The wider landscape included agricultural land, woodland, the town of Costessey and riparian habitats associated with the rivers Tud and Wensum (see Figure 1).
- 1.5 The site itself was grassland field with hedgerows and scattered mature trees at the eastern, southern and western boundaries. The majority of the field was horse grazed, with patches of longer grasses. Gardens from residential housing lay adjacent to the eastern boundary of the site. A man-made trench ran along the northern boundary and areas of dense scrub were recorded at the boundaries of the site.

Figure 1: Site location



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Aims and objectives

1.6 The aims and objectives of this survey were to;

- identify the presence of any reptile species using the site;
- advise of any implications their presence would have on the proposed development; and

- suggest appropriate mitigation methods where necessary.

2 Methods

- 2.1 The reptile surveys were undertaken by from Seán Doyle BSc (Hons) MSc, Emma Bruce BSc (Hons) MSc, Isaac Stirling BSc (Hons) and Hetty Wakeford from James Blake Associates Ltd between the 30th May and 14th July 2017, on days with suitable weather conditions for finding reptiles (Froglife 1999). With an extra survey being conducted due to one of the previous visits being hotter than twenty degrees.
- 2.2 To undertake the reptile survey, artificial refuges (roofing felt mats) were used. These increase the chances of observing otherwise elusive reptiles, which are attracted to these 'refuges' as they can bask on top or regulate their body temperature below the refuges, out of sight from predators.
- 2.3 Seventy refuges, measuring approximately 0.25m², were distributed throughout the site on the 15th May 2017. The refuges were laid in all areas of suitable reptile habitat throughout the site. The approximate locations of reptile mats are shown in Appendix A.
- 2.4 The refuges were left for fifteen days prior to the commencement of the survey to allow any reptiles present to begin using the refuges and were surveyed on seven subsequent visits to the site. On each visit, refuges were observed from a distance to record any reptiles basking in the sun. Following this, each refuge was approached cautiously and turned over to survey for reptiles sheltering beneath.

3 Results

- 3.1 The Norfolk Biodiversity Information Service was consulted for records of non-statutory sites and protected and rare species within a 2km search radius (NBIS data provided on the 20th June 2016). There were records of Common Lizard, Grass Snake and Slow Worms within 2km of the site but not found on site.

Survey Results

- 3.2 No reptiles were recorded using the artificial refuges during the survey period. Records from the seven survey visits are detailed in Table 1.

Table 1: Summary of results for protected reptile species

Visit	Date	Weather conditions	Reptiles observed
1	30/05/2017	20°C-Dry, Cloud cover = 25%, Wind= B-2	0
2	02/06/2017	22°C-Dry, Cloud cover = 60%, Wind= B-2	0
3	09/06/2017	16°C-Dry, Cloud cover = 30%, Wind= B-1	0
4	12/06/2017	18°C-Dry, Cloud cover = 30%, Wind= B-0	0
5	15/06/2017	19°C-Dry, Cloud cover = 10%, Wind= B-1	0
6	21/06/2017	20°C-Dry, Cloud cover = 10%, Wind= B-0	0
7	29/06/2017	20°C-Dry, Cloud cover = 0%, Wind= B-1	2 Toads
8	03/07/2017	20°C-Dry, Cloud cover = 50%, Wind= B-1	2 Toads
9	14/07/2017	18°C-Dry, Cloud cover = 90%, Wind= B-1	0

4 Discussion and Enhancement

- 4.1 The majority of survey visits were all carried out in suitable weather conditions at the optimal time of year for reptile surveys. A survey on 2nd June was conducted when the weather was too hot for reptile survey, Therefore an 8th survey in optimal weather conditions was conducted on 3rd July. Further, as mats could not be collected on the 3rd July, a 9th survey in

optimal weather conditions was conducted on 14th July on the date mats were collected. In total nine survey visits were completed, eight of which were in suitable weather conditions. The density of refuges used was well above the recommended: Seventy refuges were used across approximately 4.6ha of land, whereas guidelines suggest ten per hectare. Given that the density of refuges used during this survey was higher than ten per hectare, the findings are not considered to be directly comparable, but provide an indicative representation of use of the habitats within the site boundary by reptiles. By using an increased survey density reptile populations are less likely to be under-estimated and provide a more conservative approach to preservation of the local population status of reptiles.

4.2 No reptiles were recorded using the artificial refuges during the survey period. Therefore, there are no constraints or mitigation requirements for the development, with respect to reptiles.

4.3 However, habitats on and adjacent to, the site were considered suitable for reptiles and it is possible that if the site remains unchanged, reptiles could colonise in the future. Therefore, if development has not commenced within three years from the date of the surveys then the surveys will need to be updated to ensure that reptiles have not started using the site in the interim.

5 Enhancement Recommendations

5.1 The following suggestions could enhance the value of the site for reptiles and other wildlife post-development.

- Landscaping should include native or wildlife attracting plants particularly a rough grassland area or wildflower meadow to attract invertebrates and foraging reptiles.
- Grass clippings and other vegetation could be collected and composted in a corner of the site. This may (in time) become suitable for breeding grass snakes and other wildlife.
- Log or rock piles located around the edges of the site could provide potential refuge habitat for reptiles and other wildlife.

6 References

Edgar, P., Foster, J., and Baker, J. (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

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7 Appendices

Appendix A: Indicative location of reptile refugia.



Appendix B: Relevant protected species legislation

Species	Relevant Legislation	Level of Protection
Reptiles	<ul style="list-style-type: none">Partially protected by the Wildlife and Countryside Act.	The WCA (1981) makes it an offence to: <ul style="list-style-type: none">intentionally kill or injure these animalssell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals