D F Clark Bionomique Ltd

Reptile Survey

of

EON Site, Rayleigh

on behalf of

Bellway Homes Essex

Reference:	DFC 1069
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1.0 Summary

The EON site located at 190 London Road, Rayleigh, Essex was surveyed for reptiles during June and July 2011. A total of 35 artificial refuges were placed within the site to survey for reptiles.

A good population of slow worm were discovered during the survey (maximum of 6 adults seen in one visit). Slow worm are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). Therefore before site clearance commences, the reptiles will need to be caught and translocated to either a safe and suitable on-site or off-site receptor site.

Given that the proposed 107 unit development is likely to increase predation pressure on the local population of slow worm because of a likely increase in the number of cats present in and around the site it is recommend that the population of slow worm are caught and translocated to an off-site receptor habitat. In particular:-

Key recommendations

- The local population of slow worm should be caught and translocated to an off-site receptor at Stow Maries airfield during August and September 2011.
- Exclusion fencing should be erected before trapping commences on the boundary of the development in those areas where there is a risk of reptiles moving into the site from suitable habitat outside the development boundary.
- If trapping has not been completed before the end of September 2011, site clearance of suitable reptile habitat should not commence until the following summer after a spring trapping program between April and May has been completed.
- The developer should make a donation of £1500 to support further conservation management at the Stow Maries site, thereby securing biodiversity gain.
- Once the site has been cleared of slow worm a suitably qualified ecologist should supervise a phased destructive search of the remaining habitat.

2.0 Introduction

2.1 Instruction

DF Clark Bionomique Ltd was instructed by Clive Bell of Bellway Homes Essex on 14th June 2011 to carry out a reptile survey of the EON site, Rayleigh.

The ecological appraisal by Cresswell Associates on 9th August 2010 (report September 2010) and a walkover survey by DF Clark Bionomique on May 10th 2011 provide a detailed description of the habitats on site.

Recommendations included within this report are the professional opinion of an experienced ecologist.

The surveys were carried out by Dr David W. Smith. David has 4.5 years professional experience as an ecologist and is a full member of the IEEM.

2.2 Aims

This survey and report aims to:

- Confirm presence / likely absence of reptile species on site
- Identify important areas on site and provide an estimate of population size (i.e. low, good or exceptional).
- Summarise the overall ecological value of the site for reptiles

See Appendix 3 for wildlife legislation and planning policies relevant to reptiles.

3.0 Method

3.1 Reptile Survey

35 artificial refuges made from 0.5m x 0.5m pieces of roofing felt or corrugated metal were placed in areas of suitable basking habitat around the site. The refuges were left undisturbed for a period of 1 week to allow any reptiles present on site to discover and start using them before monitoring visits commenced.

The site was surveyed 8 times between 23rd June and 6th July 2011during conditions considered suitable to encourage reptile basking behaviour. Each survey comprised a visual search for basking reptiles by walking slowly and quietly around the site, checking beneath each artificial refuge and other natural basking sites.

The site was visited at different times of day because some areas of the site were in full sun in the morning, whereas others were in full sun in the afternoon. This meant that at any one time, there were areas on the site that were in shade, some in optimum conditions and other areas were potentially too hot. By spreading out the site visits during the day, and in different weather conditions, it was hoped a representative survey would be conducted.

3.2 Assessment

Assessment guidelines are provided in Froglife Advice Sheet 10 (Froglife 1999).

4.0 Survey Results

4.1 Reptile Survey

Slow worm were found in all areas of the site where artificial refugia had been placed. The strip of habitat adjacent to the hard-standing and tree/scrub habitat appeared to support the highest density of slow worm (see Appendix 1).

The habitats in other parts of the site were generally less suitable, however, slow worms were also found in these areas.

Population estimates of reptiles are based on the number of adult animals found during surveys and the number of sub-adults found are not used (Froglife 1999). The results therefore indicate that the site supports a good population of slow worm. The nature of the site meant that it was not possible to survey the entire survey under optimum conditions. As a result it is likely that there a slightly more slow worm on site than the results would indicate, however, the population category would remain as good.

No other reptile species were found during surveys and full results can be found in Appendix 2.

5.0 Conclusions and Recommendations

5.1 Reptiles

The site supports a good population of slow worm. The animals on site are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). Therefore before site clearance commences, the reptiles will need to be caught and translocated to either a safe and suitable on-site or off-site receptor site.

The proposal for a 107 unit development is likely to increase the predation pressure on the local reptile population because there is likely to be a local increase in the number of cats. The amount of suitable habitat will also be reduced. As a consequence it is recommended the population of slow worm are caught and translocated to an off-site receptor at Stow Maries airfield.

The Stow Maries site is committed to conservation orientated management and a small population of slow worm (15 adults and 25 sub-adults) have already been released on site. However, it is considered the number of animals released may be too low to form a viable long-term sustainable population. The development at the EON site has the potential to create a larger, viable population that is likely to be self-sustaining in the long-term.

The developer should make a donation of £1500 to support conservation management at Stow Maries airfield that is specifically targeted at reptiles.

Before trapping commences, reptile exclusion fencing should be erected in those areas where the adjacent areas provide suitable habitat for slow worm. This will ensure animals do not move onto site after trapping has been completed. Furthermore, it will minimise the period when trapping is required. The installation of fencing will need to be supervised by a suitably qualified ecologist and not impact on any trees that are to be retained and protected during the development.

The trapping program should commence as soon as possible and be complete by the end of September 2011. If clearance has not been completed by the end of September habitat clearance will not be able to proceed until the following summer after a spring trapping program between April and May has been completed.

Once the site has been cleared of slow worm a suitably qualified ecologist should supervise a phased destructive search of the remaining habitat. The timing and methods of habitat clearance need to consider the presence of other protected species on site (e.g. breeding birds and bats).

If the report recommendations are followed the potential impacts on reptiles are minimises and an opportunity to deliver biodiversity gain would be secured.

6.0 References

DF Clark Bionomique Ltd (2011) Ecological Assessment, EON site, Rayleigh, Essex.

Foster, J. & Gent, T. (1996) *Reptile Survey Methods. English Nature Science 27.* English Nature, Peterborough

Froglife (1999) *Advice Sheet 10: Reptile Survey – An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*

Gent, T & Gibson, S (2003) *Herpetofauna Workers' Manual*, JNCC, Peterborough

Institute for Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom*

Stone G. (2010) *Ecological Appraisal for 190 London Road, Rayleigh, Essex.* Cresswell Associates.

Local Biodiversity Action Plan www.essexbiodiversity.org.uk

UK Biodiversity Action Plan www.ukbap.org.uk

Appendix 1:

Reptile Survey Map

[insert drawing here]

Appendix 2:

Reptile Survey Results

Date	Temperature	Weather	Start time	Slow Worm	Notes
23/06/11	17°C	Patchy cloud	10:30	2 Ad male 4 Ad Female 7 Sub-adult	
24/06/11	15°C	Clear sky, sunny	09:00	0 Ad male 0 Ad Female 2 Sub-adult	
27/06/11	26°C	Clear, hot	09:45	0 Ad male 2 Ad Female 9 Sub-adult	
28/06/11	22°C	Overcast, just before rain	14:25	1 Ad male 4 Ad Female 5 Sub-adult	
30/06/11	19°C	Patchy cloud	12:30	0 Ad male 6 Ad Female 4 Sub-adult	Cat seen on site near reptile mat.
04/07/11	19°C	Clear sky, sunny	10:30	0 Ad male 4 Ad Female 0 Sub-adult	
05/07/11	21°C		10:15	0 Ad male 4 Ad Female 7 Sub-adult	
06/07/11	17°C	Patchy cloud, rain previous earlier in morning	10:45	0 Ad male 5 Ad Female 2 Sub-adult	

Appendix 3:

Legislation & Planning Policy

Legislation

Grass snake, adder, slow worm and common lizard are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended) although their habitat itself is not protected.

Smooth snake and sand lizard receive a higher degree of protection but the site does not provide suitable habitat for these two species.

National Planning Policy and Guidance

The UKBAP is used as a guide for decision makers such as local authorities to fulfil their obligations under sections 40 and 41 of the Natural Environment and Rural Communities Act 2006. These are to have regard to the purpose of conserving biodiversity in carrying out their duties. All reptile species are listed on the UK Biodiversity Action Plan (UKBAP) as a priority species of conservation concern.

Key principle 2 of Planning Policy Statement 9 (PPS9) states:

"...planning decisions should aim to maintain, and enhance, restore or add biodiversity interest."

If the recommendations within the report are followed the proposed development has the potential to enhance biodiversity by securing a long-term, self-sustaining population of slow worm at a site specifically managed for wildlife. By making a donation the developer secures further conservation management over and above that already planned, thereby enhancing the quality of habitat for reptiles.

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