



Norway Lane Site, Littlehampton

Protected Species Survey Report

15th June 2009

Client	Mr. R F Wickens
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Author	Marcus Fry	Director	15 th June 2009

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1 Introduction

1.1 Site Description

The Norway Lane Site (the "site") is located adjacent to the Watersmead Business Park, in the north of Littlehampton, West Sussex at post code BN17 6LS. The site, which is approximately 0.7 hectares in size, is centred on Ordnance Survey grid reference TQ 040 036 and comprises semi-improved neutral grassland, ruderal vegetation, low numbers of broadleaved trees, a disused house and part of Norway Lane.

The land use surrounding the site is light industrial to the north, north-west and west, residential to the south and south-east, and agricultural to the north-east. There is a large pond immediately adjacent to the site's western boundary and a railway line close to the site's northern boundary. The site and surrounding area are illustrated in aerial images provided in Appendix 1.

1.2 Proposed Works

It is proposed to develop the site for residential use, which will require the removal of the semi-natural habitats currently present within the site and the re-profiling of the undulating ground. Subsequent to the development being completed the site will support residential properties with gardens and an associated access road.

1.3 Background

The scope for the protected species surveys described in this report has been defined by the Andrew McCarthy Associates Extended Phase 1 Habitat Survey Report, dated 19th May 2009. This report recommended further survey work to include a great crested newt (*Triturus cristatus*) survey of the pond adjacent to the site, a reptile survey of the overall site and a bat survey of the disused house. This information is required by the Local Planning Authority (LPA) since as part of any planning application, Government Planning Policy requires LPAs to base their decision making upon up-to-date information about protected species. This information is also needed to inform the need for a European Protected Species (EPS) licence to be applied for from Natural England, in relation to great crested newt.

1.4 Aims of Study

In order to inform the planning application for the site, GreenLink Ecology Ltd has been commissioned by Mr. R F Wickens, the owner of the site, to carry out protected species survey work for great crested newt, reptiles and bats.

The aim of this report is to present the results of the protected species survey work undertaken for the site, and highlight any areas of conservation concern. This report also makes recommendations in terms of what mitigation/compensation measures are required for protected species in order for the proposed works to progress without causing an offence against the legislation.

2 Methodology

The survey work for the following protected species was undertaken by Leon Brown MIEEM¹, accredited agent of Natural England great crested newt licence holder no. 20082077 and holder of Natural England bat licence holder no. 20091108.

2.1 Great Crested Newt

For great crested newt (*Triturus cristatus*), the survey methodology has been defined in detail by Natural England². This requires a minimum of four PM/AM survey visits to be conducted by a Natural England licensed ecologist (or accredited agent), between mid-March and mid-June, with at least three of the PM/AM survey visits being undertaken between mid-April and mid-May. If great crested newts are recorded during these initial survey visits, two further PM/AM survey visits are required in order to make a population size class assessment.

The pond which is located adjacent to the site's western boundary was surveyed in full for the presence of great crested newt, during four PM/AM survey visits, which were undertaken under optimal weather conditions, incorporating three of the approved survey methods including bottle trapping, torch-lighting and egg searching.

2.2 Reptiles

Forty mixed material Artificial Cover Objects (ACOs) were distributed throughout the site where there are semi-natural habitats present which are potentially suitable to support reptiles (i.e. a mosaic of ruderal vegetation, grassland and bare ground). These ACOs attract reptiles to them, if present within an area, as they represent optimal basking and sheltering habitats. The overall site and the ACOs were subsequently checked on seven separate occasions for the presence of reptiles, under suitable climatic conditions, by an experienced ecologist.

Three areas to the north of the site were included in the reptile survey, once reptiles had been recorded within the site, to inform a mitigation and compensation strategy for the site since they have the potential to act as receptor sites for translocated reptiles. Thirty ACOs were distributed throughout these areas, identified in Appendix 2 as A, B and C, which were then subsequently checked on seven separate occasions for the presence of reptiles, under suitable climatic conditions, by an experienced ecologist.

2.3 Bats

Two dusk bat emergence survey visits were undertaken for the derelict house in the south part of the site, in accordance with the guidance published by the Bat Conservation Trust³. Each viewable aspect of the buildings was covered by a surveyor using Anabat SD1 and BatBox IIID bat detectors, to ensure that any bats emerging at dusk would be identified and ultrasonic echolocation calls recorded to enable species identification. The dusk emergence survey visits began approximately half an hour before sunset and continued until approximately two hours after sunset.

During the survey visits the numbers of emerging bats and approximate locations from which bats were seen emerging was noted. Any bat ultrasonic echolocation calls that were made within range of the bat detectors were recorded and later analysed on a computer to determine which species of bat made them.

¹ Member of the Institute of Ecology and Environmental Management (Full)

² Great Crested Newt Mitigation Guidelines. Peterborough: English Nature (2001).

³ Bat Conservation Trust. Bat Surveys -- Good Practice Guidelines (2007)

3 Results

3.1 Great Crested Newt

In summary, great crested newt was not recorded by any of the survey methods used during any of the survey visits and it is considered that the species is not present within or close to the site. The more common and widespread species of smooth newt (*Triturus vulgaris*) and palmate newt (*Triturus helveticus*) were also not recorded and it is considered that this is likely to be due to several factors, including the relative immaturity of the pond (circa 20 years old), the presence of large fish which will eat the eggs and larvae of newts, and the relative ecological isolation of the site from the surrounding area due to the presence of the railway line, main road and business park. The detailed survey results for the pond are provided below in Table 1.

Table 1: Details of the great crested newt survey

Date	Weather conditions	Method	Result
06/05/2009	Scattered cloud. 14°C	Torch	Negative
07/05/2009	Overcast, light breeze. 15°C	Trap	Negative
12/05/2009	Scattered cloud. 13°C	Torch	Negative
13/05/2009	Overcast, light breeze. 15°C	Trap	Negative
14/05/2009	Overcast, still. 14°C	Torch	Negative
15/05/2009	Overcast, light breeze. 16°C	Trap	Negative
19/05/2009	Clear, cool. 13°C	Torch	Negative
20/05/2009	Scattered cloud. 20°C	Trap	Negative

3.2 Reptiles

In summary, two species of reptile were recorded consistently during the seven survey visits of the site, including slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*). Reptiles were recorded throughout the site, with most being recorded around the pond and edges of ruderal vegetation in the northern part of the site. Mature individuals of both sex and juveniles were recorded during the survey for both species, indicating that the site supports a breeding population of slow worm and common lizard. Within areas A, B and C, lower numbers of both slow worm and common lizard were recorded during the seven survey visits, which is most likely due to these areas being dominated by amenity grassland or tall ruderal vegetation, which are sub-optimal habitats for reptile use. The detailed survey results are provided below in Table 2.

Table 2: Results for the reptile survey visits

Date	Weather conditions	Species	Site	Area A	Area B	Area C
06/05/2009	N/A - Layout of ACOs	N/A	N/A	N/A	N/A	N/A
12/05/2009	Scattered cloud. 18°C	Slow worm	0	N/A	N/A	N/A
		Common lizard	2	N/A	N/A	N/A
13/05/2009	Overcast, light breeze. 17°C	Slow worm	1	N/A	N/A	N/A
		Common lizard	0	N/A	N/A	N/A
14/05/2009	Scattered cloud. 18°C	Slow worm	3	N/A	N/A	N/A
		Common lizard	3	N/A	N/A	N/A
15/05/2009	Overcast, light breeze. 16°C	Slow worm	2	N/A	N/A	N/A
		Common lizard	2	N/A	N/A	N/A
20/05/2009	Scattered cloud. 20°C	Slow worm	1	1	0	0
		Common lizard	2	0	1	1
21/05/2009	Clear, warm. 20°C	Slow worm	3	1	1	0
		Common lizard	1	0	0	0
22/05/2009	Clear, warm. 20°C	Slow worm	1	2	1	1
		Common lizard	1	0	0	0
25/05/2009	Scattered cloud. 21°C	Slow worm	N/A	1	0	0
		Common lizard	N/A	0	1	1
26/05/2009	Clear, warm. 22°C	Slow worm	N/A	1	1	0

Date	Weather conditions	Species	Site	Area A	Area B	Area C
27/05/2009	Clear, warm. 20°C	Common lizard	N/A	0	0	1
		Slow worm	N/A	1	0	0
		Common lizard	N/A	0	0	1
01/06/2009	Scattered cloud. 21°C	Slow worm	N/A	2	1	0
		Common lizard	N/A	0	0	2

3.3 Bats

In summary, the emergence survey visit that was undertaken on 20th May 2009 recorded one common pipistrelle (*Pipistrellus pipistrellus*) bat emerging from a hole in the soffit area of the eaves on the south side of the house, with no other bats recorded emerging from any other location. The emergence survey visit that was undertaken on 27th May 2009 did not record any bats emerging from any parts of the house. Relatively low levels of bat foraging activity were observed around the area, in particular from around the pond where both common pipistrelle and soprano pipistrelle (*Pipistrellus pygmaeus*) bats were recorded. The detailed results of the bat emergence survey are provided below in Table 3.

Table 3: Details of the emergence survey results.

Date	Weather conditions	Time of sunset	Temp at sunset	Species of bat recorded emerging (numbers)
20/05/09	Overcast, humid	20:53	13°C	Common pipistrelle (1)
27/05/09	Scattered cloud, recent rain	21:03	14°C	N/A

In addition to the emergence survey the interior and exterior of the house were inspected for evidence of, or potential for bats. Features and evidence considered included:

- Roof and wall construction;
- Other external features that have the potential to be actual bat roosts or provide access to roosting opportunities within the buildings;
- Any droppings and/or staining on external walls;
- Scattered or accumulated bat droppings (identified by their dry, powdery texture when compressed) within the roof voids or around entrances to potential roosts;
- Places where cobwebs have been swept away; and
- The actual presence of live or dead bats.

In summary, no evidence of bats was recorded from the internal and external inspection of the house. It is considered that this building has very limited potential roost features that could only be used by low numbers of seasonally roosting bats during the spring-autumn.

4 Assessment

4.1 Constraints

There were no significant constraints to any of the protected species survey work conducted for the site, since the survey visits were undertaken within the correct seasonal period, by an appropriately licensed and experienced surveyor using standard survey techniques. It is considered that the suite of surveys for protected species have been thorough and rigorous and in full accordance with the published guidelines, where applicable.

4.2 Potential Impacts

4.2.1 Great Crested Newt

Since great crested newts have not been recorded within the pond adjacent to the site, it is considered that there are no perceived impacts to individuals, or to the conservation status of the local great crested newt population as a result of the proposed works.

4.2.2 Reptiles

Slow worm and common lizard have been recorded within the site, which are the least mobile of the four more relatively common and widespread species of reptile found in the UK. These species are unable to disperse naturally away from human disturbance associated with land clearance and in addition, are unable to react to threats during the winter when reptiles hibernate. Therefore without appropriate mitigation the proposed works could result in direct impacts to these species of reptile through injury or mortality, which would be an offence against domestic law. However by using best practice mitigation/compensation measures, it is considered that negative impacts to individual reptiles and to the conservation status of the local reptile population can be avoided.

4.2.3 Bats

Since a single common pipistrelle bat has been recorded emerging from the house, the demolition of this building could lead to direct negative impacts on bats including injury or mortality and the disturbance, damage and destruction of an actual roost site, all of which would be an offence against legislation. However, despite these potential impacts, by using best practice mitigation/compensation measures, it is considered that negative impacts to individual bats and to the conservation status of the local bat population can be avoided.

4.3 Legislation and Policy

4.3.1 Reptiles

All species of reptile native to the UK are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended by the CRow Act 2000³) in respect of deliberate, intentional or reckless killing and injuring. Protection is not extended to the habitats of slow worm and common lizard.

³ Key sections of the Wildlife and Countryside Act 1981, principally those relating to powers and penalties have been amended by the Countryside and Rights of Way Act 2000 (CRow Act). One of the most important of these is the addition of the word 'reckless' within offences under Section 9(4) of the Wildlife and Countryside Act 1981, which makes prosecution easier.

4.3.2 Bats

British bats, and their habitats, are protected under the Wildlife and Countryside Act 1981 (as amended), and by the Conservation (Natural Habitats &c.) Regulations 1994, as amended by the Conservation (Natural Habitats, &c.) (Amendments) Regulations 2007⁵ and 2009.

The legislation makes it illegal under the Wildlife and Countryside Act 1981 (as amended) to:

- Intentionally or recklessly kill, injure or take a wild bat;
- Be in possession or control of any live or dead wild bat or any part of, or anything derived from, a wild bat;
- Intentionally or recklessly obstruct access to any place that a wild bat uses for shelter or protection; and
- Intentionally or recklessly disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection.

All species of British bat are European Protected Species (EPS). As such under the Habitat Regulations 1994 (as amended) it is an offence to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb wild animals of any such species. Disturbance of animals includes in particular any disturbance which is likely to:
 - impair their ability -
 - to survive, to breed or reproduce, or to rear or nurture their young; or
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately damage or destroy a breeding site or resting place of such an animal.

4.3.3 Planning Policy Statement 9 (PPS9)

PPS9: Biodiversity and Geological Conservation, sets out government planning policies on the protection of biodiversity and geological conservation through the planning system. Local Planning Authorities (LPAs) are required under PPS9 to make planning decisions which are based upon up-to-date information about the environmental characteristics of areas, including the presence of legally protected species and designated sites for nature conservation. In the context of development proposals, LPAs are directed to ensure that species of principal conservation importance are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations. The conservation of such species should be promoted through the incorporation of beneficial biodiversity designs within developments.

⁵ The amendment includes the removal of the "incidental result defence" which applied to acts which could constitute an offence but were the incidental result of an otherwise lawful activity and could not reasonably have been avoided.

5 Recommendations

Whilst not explicitly targeting the protected species that are the focus of this report, a fundamental recommendation for the site from an ecological perspective is that semi-natural habitats composed of predominantly native species should be incorporated into the site. Trees, hedgerows and landscape planting should seek to maintain ecological connectivity with the surrounding area, which will be aesthetically pleasing to the new residents of the development as well as benefitting local wildlife. This will also allow the LPA to ensure that as required under PPS9, the development is seeking to have a beneficial impact on biodiversity.

5.1 Mitigation and Compensation

Mitigation in this context refers to practices which reduce or remove the risk of potential impacts caused by development (e.g. by changing the layout of a scheme, or altering the seasonal timing of the work). Compensation in this context refers to works which attempts to offset the impacts caused by development (e.g. by the creation of new habitats).

5.1.1 Reptiles

A mitigation and compensation strategy for reptiles will need to be developed for the site. This will need to be discussed with, and agreed in principle with the Natural England Protected Species Advisor for Sussex. The strategy will need to comprise the following elements:

- Avoidance of killing or injury – taking all reasonable steps to ensure works do not harm individuals, by altering working methods or timing to avoid impacting on reptiles;
- Habitat creation, restoration or enhancement – to provide receptor areas for displaced animals, in compensation for habitats to be lost;
- Capture and removal from site, with exclusion fencing being used to prevent reptiles entering development areas; and
- Long-term habitat management and maintenance – to ensure the reptile population will persist.

Mitigation for the site will need to include the seasonal timing of works to avoid the period when reptiles are in a vulnerable hibernating state and unable to respond to disturbance (i.e. during winter, October/November-February/March depending on the climate).

Compensation for reptiles will involve habitat enhancement for the receptor areas A, or B and C, so that they are able to support the low sized reptile population, which will need to be translocated from the site. If area A is to be used this will need to have a change of management regime so that the grassland is not intensively managed and a mosaic of other habitats will need to be created within the area. If areas B and C are used, which are small in size and hence would need to be considered together, the dense ruderal vegetation and proportion of young trees present would need to be removed and a mosaic of other habitats will need to be created within the areas. To avoid impacting upon nesting birds which may be using trees it is recommended that the clearance of any potential breeding habitat should take place outside of the breeding season, which is March-July/August, depending upon the climate.

The perimeter of the site will need to be strimmed to enable barrier fencing to be installed, which can be angled at 45° to allow reptiles to leave the site but not return. This barrier fencing will then need to be maintained throughout the development until completion, when the fencing can be removed and reptiles will no longer be excluded from area.

A phased vegetation removal will need to take place within the site once the barrier fencing has been installed, to make it less suitable for reptiles and encourage them to naturally disperse into

the areas of enhanced habitat. A trapping and translocation programme will then be required to ensure that reptiles are carefully removed from the site and moved into the areas of enhanced habitats. This would need to take place whilst reptiles are active, during March-September/October, depending upon the climate.

5.1.2 Bats

The emergence survey visits that were undertaken during May 2009 recorded a single common pipistrelle bat, emerging from the soffits on the south side of the building. It is considered likely, given that only one bat was recorded on one occasion that the house is only of low intermittent seasonal importance to male and/or non-breeding female common pipistrelle bats. For this reason a European Protected Species (EPS) licence is not likely to be required for bats in relation to the demolition of the building, although a mitigation and compensation strategy will need to be developed to ensure that there is no killing of or injury to bats and no net loss of roosting habitat within, or close to the site.

As identified in Natural England's published guidelines⁶, mitigation will need to be carried out during an appropriate time of the year, to avoid impacting upon bats during vulnerable life-cycle stages and under the supervision of an appropriately experienced and licensed ecologist. The optimal times for building demolition works are spring and autumn, since at these times of the year bats are most likely to be able to naturally disperse from disturbance and will not have dependent non-flying young. Compensation for bats will require there to be no net loss of roosting opportunities as a result of the development. This will mean that although an intermittently used roost feature currently associated with the house will be lost, prior to the demolition of the building bat boxes can be installed in a range of locations on suitably sized retained trees. This will ensure that there is a diversity of temperature and humidity conditions, which will allow bats to preferentially seek out the most suitable roosting locations throughout the year. The exact position and design of the bat boxes should be determined upon advice from a licensed ecologist.

⁶ Bat Mitigation Guidelines. A.J. Mitchell-Jones: English Nature (2004).

6 Conclusions

GreenLink Ecology Ltd was commissioned to undertake a series of protected species surveys for great crested newt, reptiles and bats. The results of the survey work indicate that great crested newt does not need to be considered further but that reptiles and bats are protected species constraints to the proposed works.

Since the proposed works have the potential to impact on reptiles and bats, a mitigation and compensation strategy will be required for these species, which will ensure that there are no impacts to individuals through killing or injury and that the conservation status of local reptile and bat populations is maintained. This strategy is likely to be made a condition of planning permission, if granted for the site.

Provided that appropriate mitigation and compensation is carried out for reptiles and bats, as would be outlined in a detailed mitigation and compensation strategy, there should be no adverse impacts on individual reptiles or bats, or to the local reptile/bat population.

7 Additional Information

It should be noted that observations relating to protected/notable species are valid at the time of survey. It is possible that protected/notable species not present during the survey may utilise or otherwise colonise the site since it was surveyed.

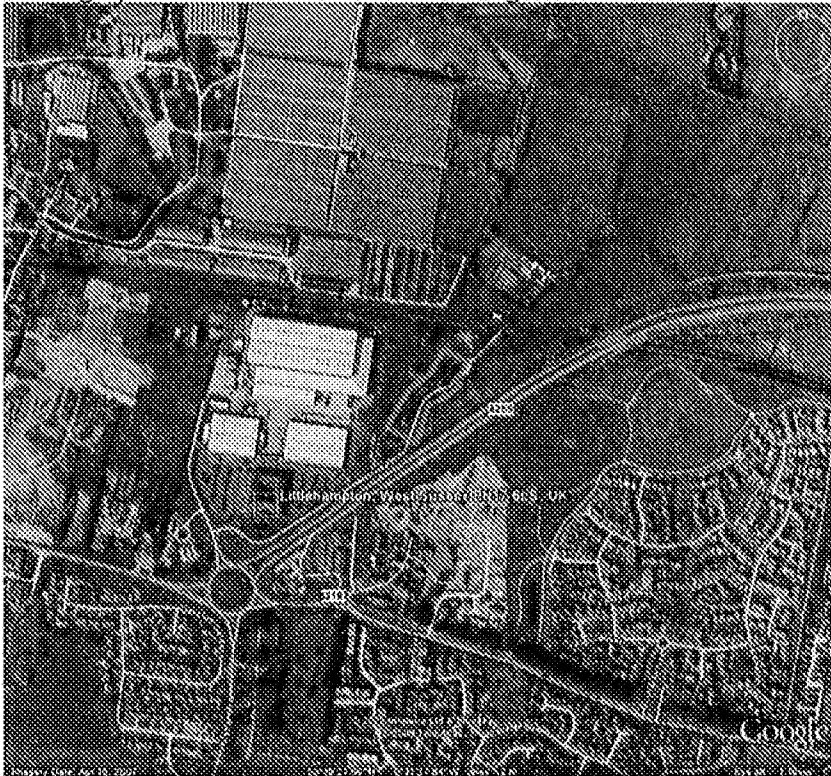
8 Appendices

Appendix 1: Aerial images illustrating the site (within the red line) and surrounding area

Photograph 1: Site and immediate surrounding area



Photograph 2: Site and wider surrounding area



Appendix 2: Areas A, B and C which are candidate receptor sites for reptile mitigation

