global environmental solutions

Eversley Haulage Park,

Eversley, Hampshire

Bat Survey and Evaluation

Appendix 4

403.00842.00002

September 2010

R.COLLARD

Demolish • Dispose • Recycle

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1.0 INTRODUCTION

1.1 Background

In September 2010, R Collard Limited instructed SLR Consulting Limited (SLR) to undertake a bat survey at the Eversley Haulage Yard near the village of Eversley, Hampshire. It is proposed that the existing waste processing facility will be re-developed. A bat survey was required in order to provide baseline information and to inform an Ecological Impact Assessment (EcIA) in respect of the planning submission which would involve a revision to the site internal layout and the construction of a new waste reception building.

The potential impacts on bats are due to the demolition of an existing office building which may potentially be used by bats for roosting and also possible alterations to flight lines caused by the construction of a new building on site.

1.2 Legislative and Planning Policy Context

All native UK species of bat are listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. This Directive is transposed into UK law through and the Conservation of Habitats and Species Regulations 2010 (The Habitats Regulations) that has consolidated and updated the Conservation (Natural Habitats, &c.) Regulations 1994 and all its various amendments, in respect to England and Wales. All bats are also listed on Schedule 5 of Wildlife & Countryside Act 1981 (as amended) and are afforded full protection under Section 9 of this Act. In brief, this legislation makes it offence to:

- deliberately kill, injure or capture a bat;
- deliberately disturb a bat or bats in such a way as to be likely to impair their ability to survive, breed, or rear or nurture their young; to hibernate or migrate; or to affect significantly the local distribution or abundance of that species;

- damage or destroy the breeding or resting place of a bat;
- intentionally or recklessly obstruct access to a place that bats use for shelter or protection; and

- intentionally or recklessly disturb a bat whilst it is occupying a place which it uses for shelter or protection.

Government Planning Policy Statement (PPS) 9 and its accompanying circular Office of the Deputy Prime Minister (ODPM) 06/2005 sets out Government Policy on Biodiversity and Nature Conservation and places a duty on Local Planning Authorities to make material consideration to the effect of a development on legally protected species, such as bats, when considering planning applications..

1.3 Study Aims and Objectives

The aims of the survey work undertaken in 2010 were to:

- to identify any areas of particular significance for bats within the proposed development site; and
- evaluate the bat interest of the site to inform the EcIA process; and

- to provide a baseline from which suitable mitigation and/or compensatory measures necessary to minimise potential impacts on bats can be developed and incorporated into the sensitive design of the development.

2.0 METHODOLOGY

Baseline ecological data were collated through a combination of desk-based study and field survey in accordance with current standard methodologies and published good practice guidelines[1].

2.1 Study Area

Eversley Haulage Yard is located approximately 3km southwest of the village of Eversley and 1km west of the Blackbush Aerodrome, Yateley, Hampshire (site centroid Ordnance Survey National Grid Reference SU 788 591). The site, which extends for approximately 1.9 hectares (ha) has been developed for industrial use and currently consists of a waste processing facility, skip yard and areas used for the parking of heavy goods vehicles. It is bordered by narrow strips of woodland. The study area for the bat survey included all land within and immediately adjacent the development site (Drawing 1).

2.2 Desk-based Study

A preliminary desk-based study was undertaken and involved collating data from a number of organisations and examining published data relating to bats at the development site and within a 2km radius of this site. Data sources used included a request for ecological records supplied by the Hampshire Biodiversity Information Centre (HBIC) and information held on the National Biodiversity Network (NBN) (www.nbn.org.uk).

2.2.1 Daytime Inspection of Buildings

The existing buildings on the site were subject to an external inspection for evidence of use by bats on 21st September 2010 by an experienced bat surveyor and assistant from SLR.

Each building was externally inspected using binoculars from ground level and also using ladders, to identify possible roost sites and access points (i.e. gaps behind fascia boards, gaps in the mortar, cracks and crevices). Evidence searched for included:

- staining, beneath or around a hole, caused by the natural oils in bat fur;
- scratch marks around a hole caused by bat claws;
- bat droppings beneath a hole, or resting area;
- bat droppings and/or insect remains beneath a feeding area;
- a characteristic odour of bats and/or droppings; and
- dead bats - usually young from a nursery roost site.

Based on the findings of the external inspection it was determined that no internal inspection was warranted for either of the buildings on the site, due to the absence of suitable roosting features.

In addition, the site and its wider surroundings were assessed for their potential to support bat species.

2.3 Dusk Emergence and Dawn Swarming Survey

Following the daytime inspection the buildings were subject to a single dusk emergence and dawn swarming surveys on 21st and 22nd September 2010 respectively by two surveyors.

[1] Bat Conservation Trust (2007). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

The surveyors were positioned in order to pay most attention to potential roost access points noted during the daytime inspection. They then closely watched the buildings from half an hour before sunset until two hours after, and again one hour thirty minutes before sunrise until daylight.

The surveyors were aided by the use of ultrasonic, frequency division (Batbox Duets) bat detectors and sound recording devices (MP3 recorders). Surveyors noted the time, species, origin, direction and behaviour of all bats, where this information could be ascertained. Where necessary, recorded calls were later analysed using spectrographical analysis software (BatSound 3.31) to aid species identification.

2.4 Survey Personnel

The surveys were led by Steve Judge MIEEM, Senior Ecologist from SLR whom is an experienced bat surveyor assisted by Alastair Stuart also of SLR.

2.5 Field Survey Timings and Weather Conditions

A summary of the survey dates, methods, timings weather conditions and surveyors are presented in Table 1.

Table 1: Survey Timings and Weather Conditions

Date	Method	Timings	Weather Conditions
21/09/10	Dusk activity survey	30 minutes before local sunset (19:04hrs) to 2 hours after local sunset	Slight southerly breeze, warm, dry with clear skies. Minimum temperature of 13^{o}C and humidity of 79%.
22/09/10	Dawn activity survey	1.5 hours before local sunrise to local sunrise (06:45hrs)	Still, cool, dry with 10% cloud cover with fog rising. Minimum temperature of 8^{o}C and humidity of 82%.

2.6 Limitations to Survey

The surveys were carried out in weather conditions and at an optimum time of year to undertake bat surveys where there are no known roosts in accordance with best practice guidelines.

The use of structures, trees and other features by bats can significantly vary not only on a seasonal basis but also from day to day. Therefore the lack of evidence of any one particular bat species does not necessarily preclude their being present on the site at a later date.

3.0 RESULTS

3.1 Contextual Information and Historical Records

3.1.1 Historical Records for Bats

No records of bats were provided by HBIC within the application site itself. However, four species of bats have previously been recorded within 2km of the study area, as follows:

- Bat species – unidentified;
- pipistrelle (*Pipistrellus* spp.);
- brown long-eared bat (*Plecotus auritus*); and
- serotine (*Eptesicus serotinus*).

3.1.2 Previous Field Surveys

As far as can be ascertained the site has not been subject to any previous bat surveys.

3.2 General Habitat Description

The study area consists predominantly of areas of hard-standing with two buildings present. The site is illuminated at night by high and low powered security lighting.

The site is located in relatively rural setting west of the urban areas of Yateley, Sandhurst and Farnborough and north of Fleet. It lies in an area with extensive blocks of mixed woodland, heathland, agricultural land predominantly under permanent pasture and mineral workings. Large tracts of the surrounding land are of national and international importance and designated as Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA).

3.3 Building Assessment

A total of two buildings or building complexes were identified within the Eversley Haulage Park site boundary (Drawing 1).

3.3.1 Description of Buildings

A summary description of the buildings surveyed, along with an assessment of their potential to support roosting bats is presented in Table 2.

Table 2: Building Description and Bat Roosting Potential

Building Reference and Photograph	Description	Potential for Roosting Bats to be Present
Building 1 (Staff Offices) 	A two storey modular portable building approximately 15m x 8m used to provide staff offices located in the central part of the site with an additional single storey annex located on the southern end of the main building. The building is timber stud construction clad with plywood and with a textured paint external finish and flat roof. Two high powered security lights are fitted on the western side of the building. The annex is of similar construction with a flat felt roof. The building is structurally sound and presents limited opportunities for bats with no obvious access points into the building. The annex part of the building has some small gaps present between the roofing felt and plywood roof but all holes were covered by old cobwebs.	Low – Negligible
Building 2 (Workshops) 	A steel frame, corrugated steel clad building approximately 30m x 25m with sets of steel shutter doors on the front of the building. The building supports no features that provide opportunities for roosting bats.	Negligible

3.3.2 Evidence of Bats

No individual or groups of bats were recorded during the external inspection of the two buildings inspected and no evidence of bats using these buildings was found to be present.

3.4 Activity Surveys

No bats were observed to emergence or re-enter any of the buildings on the site and none of the bats

At dusk low levels of noctule (*Nyctalus noctula*) and soprano pipistrelle (*Pipistrellus pygmaeus)* were recorded during the activity surveys. None of the bats recorded were in flight directly over the study area with all the registrations made faint and would suggest that

those that were recorded were commuting along the line of trees on the eastern boundary of the site.

No bat activity was recorded during the dawn survey.

A summary of the bat activity recorded during the dusk emergence and dawn swarming surveys is provided in Tables 3 and 4 respectively with sonograms of recorded calls confirming noctule provided at Appendix A.

Table 3: Dusk Emergence and Activity Survey Results for 21st September 2010

Time	No of bats & species	Details
18:34	Survey Start	
19:45	1 x noctule	Faint, heard not seen commuting on the eastern boundary of the site
19:56	1 x soprano pipistrelle	Faint, heard not seen commuting on the eastern boundary of the site
19:58	1 x noctule	Very faint, heard not seen commuting on the eastern boundary of the site
21:00	Survey End	

Table 4: Dawn Swarming and Activity Survey Results for 22nd September 2010

Time	No of bats & species	Details
05:00	Survey Start	
06:45	Survey End	

4.0 DISCUSSION AND EVALUATION

4.1 Discussion of Results

Eversley Haulage Yard provides sub-optimum habitat for bats with the buildings present supporting few features for roosting opportunities and poor quality foraging habitat that is reduced still further by high levels of illumination from high and low-powered security lighting that illuminates most of the site at night.

However, the surrounding area around the Eversley Haulage Yard provides suitable habitat for a range of bat species with the potential to provide a network of high quality features (i.e. woodlands, heathland and permanent pasture) providing suitable foraging areas and commuting routes.

The activity survey within the site recorded individual noctule bats and soprano pipistrelle commuting along the tree line on the eastern boundary of the site with no bats recorded in flight directly over the study area.

The timing of first recorded bat, 41 minutes after sunset, suggests that a bat roost on the site or in very close proximity to the site is unlikely.

4.2 Evaluation

4.2.1 Noctule

Noctule is principally a tree-roosting species that has a wide distribution throughout England, Wales and south-west Scotland but has become scarce in some areas.

Two faint registrations of individual noctule bats were made commuting on the eastern boundary of the site. Whilst some of the darker parts of the site may be used for foraging purposes, it is not likely that this site is important or critical to the local noctule population, given the availability of high quality habitat in the surrounding area. It is considered therefore that this site is of value “at within the zone of immediate influence only” for noctule bats.

4.2.2 Soprano Pipistrelle

Soprano pipistrelle is widely distributed across Britain and is one of the commonest bat species in the UK. Roosting sites are similar to those for the common pipistrelle including crevices around the outside of buildings, tree holes, crevices and bat boxes.

A solitary individual soprano pipistrelle was recorded commuting along the eastern boundary of the site. Although soprano pipistrelles are more tolerant of higher levels of illumination than noctule bats and therefore have a greater potential to use the site for foraging on the insects attracted to the security lighting it is not likely that this site is important or critical to the local population. It is considered therefore that this site is of value “at within the zone of immediate influence only” for noctule bats.

4.2.3 Overall Evaluation

Based on the external inspection of buildings and the bat activity surveys within the development site and on the evaluation above for each of the individual species, it is considered that the site is of low conservation value for bats and is not likely to be of

importance for individual or groups of bats and is of value “at within the zone of immediate influence only”.

5.0 SUMMARY AND CONCLUSIONS

The bat activity survey conducted in September 2010 by SLR recorded low levels of noctule and soprano pipistrelle commuting along the eastern boundary of the proposed development site. On the basis of the current survey information this site is unlikely to be to be critical to the maintenance of local populations of noctule bats or soprano pipistrelle at current levels and is valued at within the immediate zone of influence only.

The external inspection of the buildings on the site found no evidence to suggest the buildings are or have been used by roosting bats.

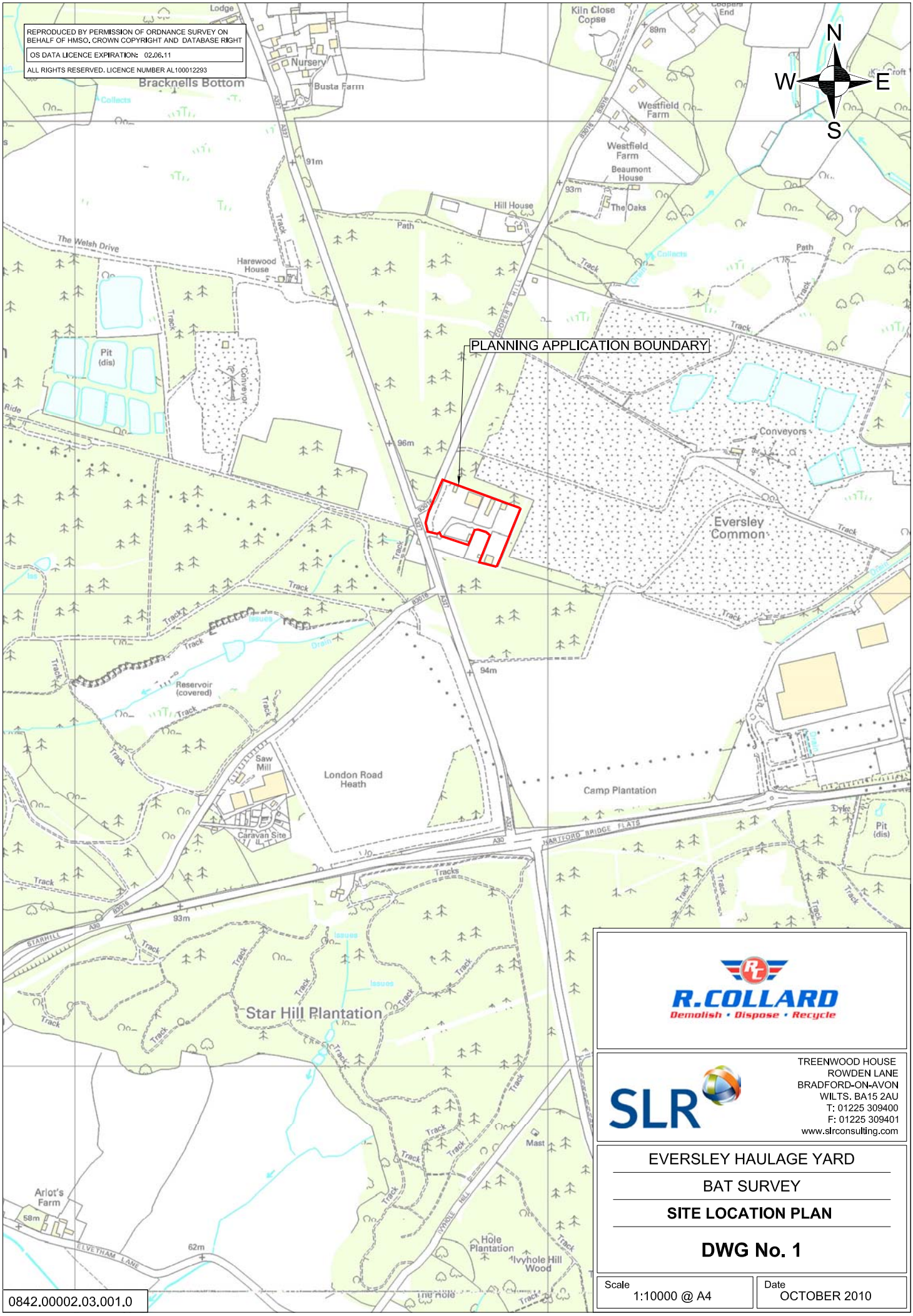
The re-development of the site will not substantially alter the existing baseline conditions within the development footprint for bats and is therefore not likely to have any significant adverse effects. A number of measures could be designed into the scheme that would benefit bats in particular the type of lighting used for security purposes and its positioning on the site.

6.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of R Collard Limited; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.



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EVERSLEY HAULAGE YARD

BAT SURVEY

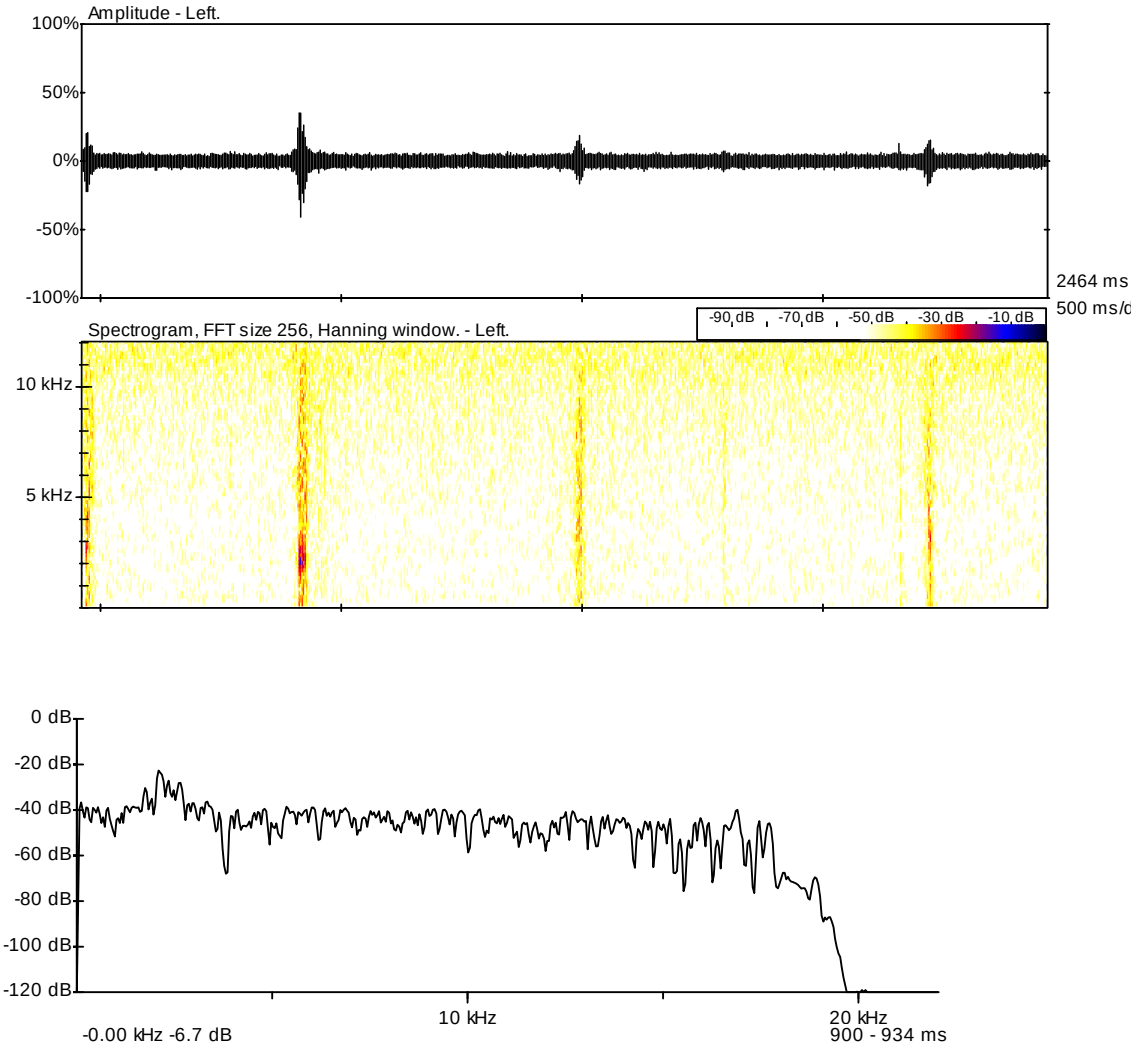
SITE LOCATION PLAN

DWG No. 1

Scale	Date
1:10000 @ A4	OCTOBER 2010

0842.00002.03.001.0

SONOGRAMS OF RECORDED CALLS



Noctule pass at 19.45 Hours on 21st September 2010