Bat Survey at Ferme Park

Proposed Concrete Batching Works

Case Number E/1808051542/PW
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Ecological Report for Haringey Council

Case Number	E/1808051542/PW
Title	Bat Survey at Ferme Park Proposed Concrete Batching Works
Version	First Draft
Number of pages	101
Number of figures	3
Appendices	2
Author	Giles Sutton

Contents

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Introduction

Ferme Park is an area of railway sidings and track, located south of Hornsey Train Station and to the east of Cranford Way, in the London Borough of Haringey, Ordnance Survey Grid Reference TQ311886. Planning permission is being sort to build a concrete batching works on the site. This report gives an assessment of the application site in terms of its importance to bats. The report has been produced by Marishal Thompson and Company for Haringey Council

The site has been the subject of two ecological assessments prior to this report. The first was carried out by Cresswell Associates in 2003, and the second by Ecology Solutions in 2005. Neither of these reports found it likely that bats rely on the site.

In 2004, Haringey Council received correspondence from a resident of Wightman Road. The resident raised concerns that the site might be important for bats. The correspondence consisted of a letter to the planning department and the results of a bat survey undertaken by Jackie Wedd. Copies of this report were sent to English Nature who advised the council that as a precaution they should consider undertaking further surveys on the site.

All bats and their roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and the EC Habitats [and Species] Directive 1992, which is implemented in the UK by the Conservation (Natural Habitats &c) Regulations 1994.

The government's policy on planning is given in Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9). This document gives guidance to planning authorities on the ways in which they should carry out their statutory duties under planning legislation. PPS9 states that, planning authorities should take measures to protect the habitats of bats from further decline, and that planning authorities should refuse permission where harm to bats or their habitats would result, unless the need for, and benefits of, the development clearly outweigh that harm.

Figure 1. ***The application site as viewed from its eastern boundary. Stroud Green Railway Bank can be seen on the left and the triangular area of scrub can be seen on the right.***

Site Description

The application site is an area of railway sidings and track and is at present little used. It has a triangular-shaped area of scrub to the south of the site, and a band of scrub running along the western boundary. The remainder of the site consists of track-ways and hard-standing, which in is are sparsely vegetated. If the proposals went ahead the majority of the scrub would be lost; although a thin strip of the band of scrub along the site's western edge would be retained.

The site has no ecological designation, but it is adjacent to the Stroud Green Railway Bank Site of Local Importance for Nature Conservation, and the 'Ecological Corridor' formed by the railway.

Figure 2. ***Western boundary of the application site***

Survey method

A walkover assessment of the site and two night-time bat activity surveys were undertaken in September 2004. A Petterson D240 time-expansion bat detector was used to facilitate bat species identification from echolocation calls.

Results and assessment

Both activity surveys recorded a small number of common pipistrelles foraging over the Stroud Green Railway Bank. No bats were observed commuting along the western edge of the site or crossing between Stroud Green Railway Bank and the site. The dates, times, weather conditions and results of the surveys are given in appendix 1.

None of the trees on site appeared to have features suitable for use by roosting bats.

At night the site is lit by a powerful floodlight. Floodlighting has been shown to deter bats from foraging, and it is believed that some species, particularly *Myotis* species and long eared bats, avoid brightly lit areas in order to reduce their risk of predation from raptors. Stroud Green Railway Bank represents a large area of suitable bat foraging habitat, and since it is adjacent to the application site, and no bats were observed foraging over the application site, the loss of foraging habitat if the development went ahead, would not have an adverse effect on bats.

Many bat species rely on linear features such as hedgerows, walls, lines of scrub or banks of vegetation to commute between foraging areas, and to and from their roosts. Gaps as small as ten metres can deter bats from using such linear features. The proposed development would result in a gap of approximately 50m in the line of scrub that makes up the western boundary of the site. If bats were using this boundary as a commuting route then the proposed development could adversely affect them. However no bats were observed flying along this boundary. To the north of the site the band of scrub becomes thin and patchy after factory unit 17 on Cranford Way and beyond this, off the application site, there are gaps of up to 30m in places. Following this line north, the next area of vegetation likely to represent good bat foraging habitat is an area of trees to the east of Tottenham Lane, north of Hornsey station, approximately 600m from the site. Any bats commuting to this area from the application site would have to traverse Hornsey station, this represents a break in the corridor of approximately 80m. It is highly unlikely that the gap in the line of scrub caused by the development, would have any adverse effects on bats.

Previous ecological appraisals

Creswell Associates (2003) did not undertake any bat activity surveys. However the value of the site and adjacent areas for roosting and foraging bats was assessed, and their report concluded that; '*any bats that may roost nearby are likely to forage and commute along the 'ecological corridor', in particular along the southern edge of the site*'. Desk study records for the 2003 appraisal revealed that bats had been '*recorded within 2km of the survey area*'.

Ecology Solutions undertook a bat activity survey in May 2005, four bats were recorded; two common pipistrelles on Stroud Green Railway Bank; and two pipistrelles to the south of Cranford Way, largely outside the application site. Desk study information gathered for their 2005 assessment revealed that; *'bat roosts are located* [somewhere within] *the 1km grid square that lies approximately 0.5 km south west of the application site*'. In addition, '*a number of other records of bats were also returned from the area surrounding the application site*', the closest records being Noctules and Pipistrelles which were recorded within 300m of the application site during 1987.

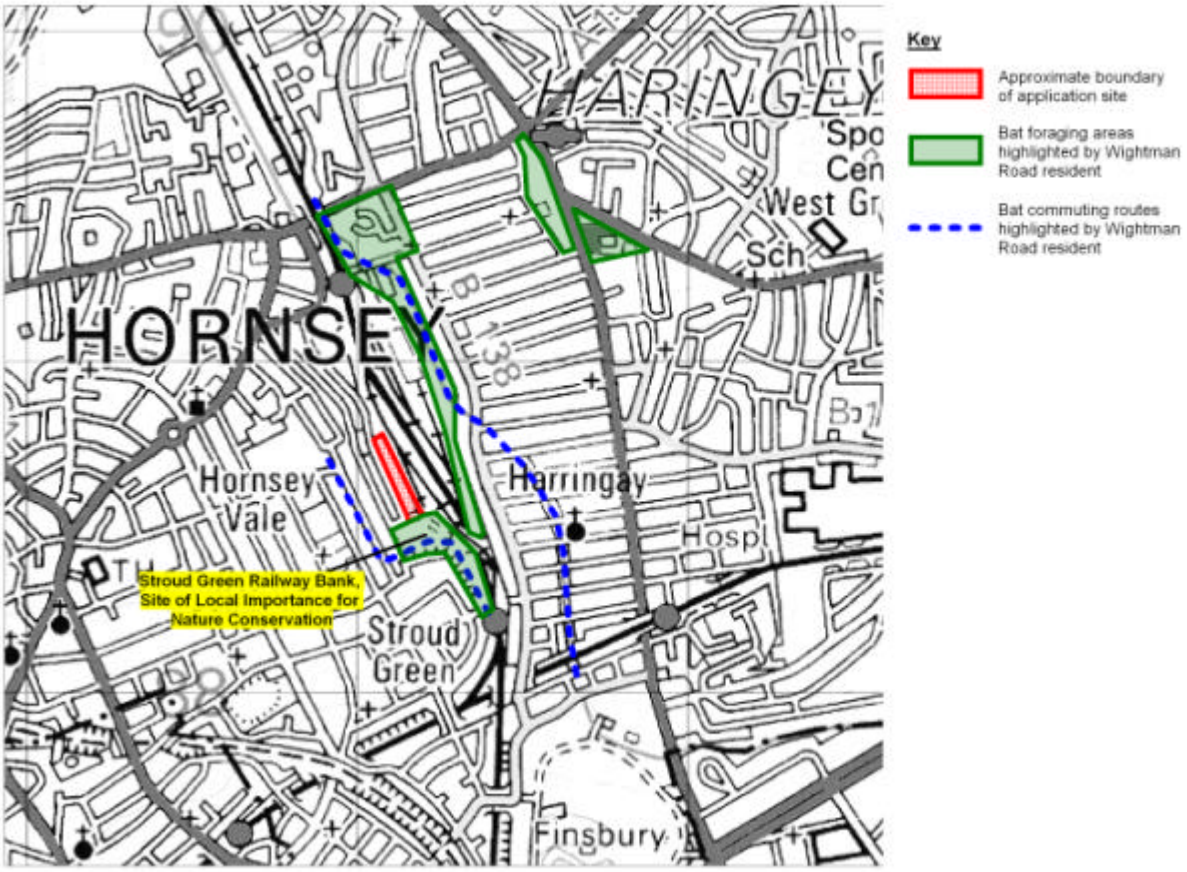
Resident's report

Jackie Wedd's report summarises the results of a bat survey carried out on the 3rd August 2004. The survey was undertaken from the rear garden of 191 Wightman Road approximately 200m east of the site. The garden lies on the opposite side of the railway tracks. During the survey at least 5 species of bats were recorded (Noctule, common Pipistrelle, Soprano Pipistrelle, possible Leisler's and two Myotis species). An aerial plan of '*likely feeding areas and major connecting routes that should be further evaluated*' was appended to the report. None of these areas are on the proposed development site (see figure 3).

The report suggests that their may be a Noctule roost close to the application site and the species was heard during both the surveys carried out for this assessment.

Noctules are woodland bats and usually roost in trees. They fly in the open, usually well above tree level and do not rely on linear features to travel between foraging areas. The break in the band of scrub caused by the proposed development, if it goes ahead, is very unlikely to adversely affect this species.

Figure 3. ***Site location and areas highlighted in resident's report***



`Not to scale. Reproduced from Ordnance Survey License Number 100043218

Summary

It is considered very unlikely that the application site represents an important area for bats, either as a foraging area or as a commuting route. There is no evidence that any bats rely on the site. Based on the present evidence the proposed development would not harm bats and unless other significant evidence to the contrary is provided there is no reason for bats to constrain development plans.

In order to improve the sites value to bats, if health and safety constraints permit, consideration should be given to reducing the level of floodlighting. This would make the area more suitable as bat foraging habitat and would reduce the light levels over Stroud Green Railway Bank.

As much of the existing vegetation as possible should be maintained. Where appropriate, consideration should be given to linking the remaining strip of scrub, along the sites western boundary, with Stroud Green Railway Bank. Recommendations in previous ecological appraisals should be adhered to.

Appendices

Appendix I. Results of bat surveys

Survey 1

Date: *1st September 2005*
Temperature (°C): *15*
Cloud cover: *1/8th*
Wind: *None*

Surveyors: *Giles Sutton, Peter Wilkins*
Sunset: *19.47*
Start time: *19.50*
End time: *21.00*

Number of bats	*Species*	*Activity*	*Time*
1	Common Pipistrelle	Commuting and foraging on Stroud Green Railway Bank	20.32
1	Noctule	Not seen, but heard somewhere to the south of the site	20.34
1	Common Pipistrelle	Commuting and foraging on Stroud Green Railway Bank	20.37

Survey 2

Date: *20th September 2005*
Temperature (°C): *12*
Cloud cover: *2/8th*
Wind: *None*

Surveyors: *Giles Sutton*
Sunset: *19.03*
Start time: *19.00*
End time: *20.20*

Number of bats	*Species*	*Activity*	*Time*
1	Noctule	Not seen, but heard somewhere to the south of the site	19.32
1	Common Pipistrelle	Not seen, but heard somewhere to the south of the site	19.46
1	Common Pipistrelle	Commuting and foraging on Stroud Green Railway Bank	19.51
1	Common Pipistrelle	Commuting and foraging on Stroud Green Railway Bank	19.54
1	Common Pipistrelle	Commuting and foraging on Stroud Green Railway Bank	19.58

Appendix II. Bats

Bat ecology

Bats are the only true flying mammals and belong to their own taxonomic group, the Chiroptera. Worldwide there are almost 1000 species, with 16 or 17 in the UK. All species in the UK are insectivorous. They have a highly sophisticated echolocation system that allows them to avoid obstacles and catch tiny insects, either in flight or by picking them off water, the ground or foliage.

Bat species in the UK

There are 16 species of Bat that are known to exist in the UK mainland and a further two occur as rare migrants. Bats in the UK belong to one of two taxonomic families, the Rhinolophidae (horseshoe bats) and the Vespertilionidae (all other UK bats).

Bat Conservation Status

Bat populations have undergone a significant decline in the past sixty years. For example, estimates from the National Bat Colony Survey suggest that the UK pipistrelle population (one of our commonest bat species), declined by approximately 70% between 1978 and 1993. Factors contributing to this decline include:

- Loss of, and damage to, roosting sites, including buildings, hollow trees, and underground structures (mines, tunnels, ice-houses, cellars, etc).
- Loss and fragmentation of suitable insect-rich feeding habitats such as wetlands and deciduous woodland.
- Reduction in the abundance and diversity of insect prey due to intensive agriculture, particularly over-grazing and the use of pesticides.
- Loss of linear features such as tree-lines and hedgerows, depriving bats of commuting routes between roosts and feeding areas.

Roosts

Bats use a variety of roosts of different types including trees, buildings, caves, mines and other structures. Most species are colonial and roost in groups. This can make populations particularly vulnerable to loss of roosts as the loss of a single roost may affect the whole population. Some species hang in obvious locations, such as the timbers near to the apex of a roof, others roost in cracks and crevices, such as the gaps under tiles, and as such can be very difficult to locate.

During the winter (November – February), when there is a reduction in insect numbers, bats hibernate to conserve energy. They prefer sites with a constant low temperature and a high relative humidity. On mild winter's nights, bats may wake up and feed. However, bats are particularly vulnerable to disturbance at this time of year as, flying in winter uses up large quantities of energy that cannot easily be replaced.

In the spring, after emerging from hibernation, bats often move from site to site and may congregate in small groups. Female bats gather together in the summer in maternity roosts. Once the young have stopped suckling, and the baby is independent, bats tend to disperse and use other roosts. Maternity roosts are particularly vulnerable to disturbance, as bats may have come from a wide geographical area, and have a strong tradition of returning to the same roost year after year.

During the late summer and early autumn males occupy mating roosts which are visited by several females. After mating some species gather together at swarming sites to fatten up prior to hibernation.

Habitat associations

In addition to roosts, bats also need foraging habitats, to find suitable food resources, and, commuting routes, to get to these areas. As would be expected, the highest numbers of bats are found in areas with abundant insects. Some species specialise in catching small insects in flight, whilst others specialise in catching larger insects such as moths and beetles. The distances that bats travel to foraging areas varies between species, records have shown some greater horseshoe bats travel up to 22km to forage.

Bats, especially the smaller species, tend to follow linear features (such as hedgerows and tree lines) to their foraging habitats and will often not cross open spaces. A gap of 10m in a linear feature will often not be crossed by bats, and it is important that developments do not create such gaps if a linear features is used by bats.

Bats and the Law

In the UK all bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and the EC Habitats [and Species] Directive 1992, which is implemented in the UK by the Conservation (Natural Habitats &c.) Regulations 1994. This makes it an offence to intentionally kill or injure bats, or to damage, destroy or obstruct access to their roosts. The Countryside and Rights of Way Act 2000 (The CRoW Act) has made it an offence to recklessly disturb bats or recklessly damage or obstruct access to any structure or place that bats use for shelter or protection. Any development work affecting protected species, such as bats, requires a licence from DEFRA. To disturb a bat can simply include entering a known roost and as such an appropriate license must be held prior to doing so.

Section 21 of the Wildlife and Countryside Act 1981 sets fines. For Section 9 offences (this includes offences against bats) the fine can be up to £5,000.00 per bat. The CRoW Act amends this (in England and Wales only) so that for Section 9 offences the fine is £5,000.00 and/or a period of imprisonment of up to six months. Under both the Regulations and the Act there is corporate liability, meaning that a Managing Director could be liable for prosecution for the actions of staff following instructions.

Annex II of the Habitats Directive lists four species of bats found in the UK (the lesser horseshoe, the greater horseshoe, the Bechstein's and the Barbastelle). This annex relates to the designation of Special Areas of Conservation (SAC's) and its aim is to establish a network of protected sites across the EU known as Natura 2000. Developments likely to affect these species and sites are likely to receive particularly close attention from planning authorities.

The effects of development proposals on foraging areas and commuting routes can be a material consideration when assessing the impacts of the proposal on the maintenance of a species favourable conservation status. As such any ecological assessment should include an assessment of the habitat in terms of bat commuting routes and foraging areas.