



Vattenfall Wind Power Ltd

Thanet Extension Offshore Wind Farm

Annex 5-12: Additional Bat Survey Report

June, 2018, Revision A

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Vattenfall Wind Power Ltd

Thanet Extension Offshore Wind Farm

Annex 5-12: Additional Bat Survey Report

June, 2018

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THANET EXTENSION OFFSHORE WIND FARM

Additional Bat Survey Report
Prepared for: GoBe Consultants

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1.0 Introduction

1.1 Background

SLR Consulting was commissioned by GoBe Consultants (on behalf of Vattenfall Wind Power Ltd) in January 2018 to carry out the onshore biodiversity assessment as part of the Environmental Impact Assessment (EIA) for the proposed Thanet Extension Offshore Wind Farm (TEOW). The commission included the completion of various associated studies and reports, including this report which presents the results of additional surveys for bats undertaken in May 2018.

1.2 Purpose and Scope of Study

Surveys for bats were carried out between August and November 2017 by SLR Consulting and this report should be read alongside the report on the 2017 surveys¹. The 2017 surveys included preliminary assessments of bat roost potential and the potential value of habitats for foraging / commuting bats; detailed inspections of trees which could potentially be affected by the proposed development; nocturnal roost surveys of a line of trees for which detailed inspections were not possible; manual transect activity surveys and static detector activity surveys.

Due to the timing of the commission surveys were only undertaken at the latter end of the bat active season (August to October). Whilst effort was made to compensate for the absence of survey data during the early and mid-season periods, i.e. by additional transect survey and static recording effort during the survey period, it was acknowledged that the lack of bat activity data for earlier in the season is a potential constraint to any subsequent assessment.

In February 2018 it was therefore agreed with relevant stakeholders²³ that additional bat surveys would be carried out in spring 2018. The agreed scope of additional survey work included:

- nocturnal emergence/ return surveys of a small number of Lombardy poplar trees in the northwest corner of the Baypoint Sports Club site that were too rotten to climb in October 2017 and as a precaution were therefore identified as having moderate potential to support roosting bats; and
- additional bat activity survey, including transects and static recording, replicating the surveys carried out in 2017.

In addition a daytime roost inspection was undertaken for trees which could be affected by the proposed new access into the Baypoint Sports Club site. This access has been added to the development proposals since the completion of bat surveys in 2017 and the trees here were therefore not assessed during the 2017 surveys.

Requests for a permit to survey within Pegwell Bay Country Park and Stonelees Nature Reserve were declined by Kent Wildlife Trust (KWT) in April 2018. Bat activity surveys were therefore not carried out in these areas. Access was granted to the Baypoint Sports Club site however and this was therefore subject to survey.

The aims of the surveys were to provide baseline data to inform the EIA for the project. The assessment of impacts resulting from the proposed development and the development of mitigation measures, if required, are beyond the scope of this report and are covered in a separate Environmental Statement (ES), Volume 3, Chapter 5: Onshore Biodiversity.

¹ SLR Consulting Ltd (2018) Thanet Extension Offshore Windfarm Bat Survey Report; 414.05356.00003 Issue02, February 2018.

² Evidence Plan Meeting on 8th February 2018.

³ Letter from Will Hutchinson (Natural England) to Sean Leake (GoBe Consultants) dated 8th March 2018.

1.3 Relevant Legislation

1.3.1 Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations 2017) transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law. The 2017 Habitats Regulations came into force on November 30th 2017 and consolidate and update the Conservation of Habitats and Species Regulations 2010. Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). All UK bat species are listed under Schedule 2 of the Habitats Regulations 2017.

1.3.2 Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;

All UK bat species are listed under Schedule 5 of the Act.

1.3.3 Natural Environment & Rural Communities (NERC) Act 2006

The NERC Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

Section 41 of the Act requires the publication of a list of habitats and species publish which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity. Bat species listed as Species of Principal Importance comprise:

- Barbastelle *Barbastella barbastellus*;
- Bechstein's bat *Myotis bechsteinii*;
- Noctule *Nyctalus noctula*;
- Soprano pipistrelle *Pipistrellus pygmaeus*;
- Brown long-eared bat *Plecotus auritus*;
- Lesser horseshoe bat *Rhinolophus hipposideros*; and
- Greater horseshoe bat *Rhinolophus ferrumequinum*.

2.0 Methodology

2.1 Survey Area

The survey area comprised the grounds of Baypoint Sports Club only (see Drawing 1). As noted in Section 1.2, requests for a permit to survey the areas within the project Red Line Boundary (RLB) located within Pegwell Bay Country Park and Stonelees Nature Reserve, to the north of Baypoint Sports Club, were declined by KWT. The land within the RLB to the south of Baypoint Sports Club (i.e. the British Car Auctions site and former Richborough Port site) is dominated by hard standing and has limited suitability for bats therefore survey was not considered necessary. Access for survey within the Richborough Energy Park site, to the west of the A256 was not possible. This area has been subject to previous bat surveys, data from which have been provided to inform the EIA.

2.2 Survey Aims

The main aims of the surveys were as follows:

- To determine, as far as possible, whether bats were roosting in trees which could be affected by the proposed development;
- To identify, as far as possible, the bat species using the survey area and the levels of activity by each species, including any differences in the relative levels of activity across different parts of the survey area; and
- To identify any significant differences in the patterns of activity between the surveys undertaken in 2017 and the surveys undertaken in May 2018.

2.3 Preliminary Roost Assessment

2.3.1 Trees

A daytime visit was made on 17th May 2018 by a licensed bat worker to evaluate the potential for bats to roost in the trees within the footprint of a proposed new access route into the Baypoint Sports Club site. Trees were inspected from ground level on all accessible aspects using high-powered binoculars and torches to identify features that may be used by bats for roosting, known as Potential Roost Features (PRFs), and to view inside cavities where possible. Additionally, a bat box attached to one of the trees was inspected for signs of bat presence.

The roost potential of each tree or group of trees was assessed based on current Bat Conservation Trust (BCT) guidelines⁴, as summarised below:

- Negligible: No habitat features likely to be used by roosting bats.
- Low: Trees of sufficient age to support PRFs but none seen or only very limited features.
- Moderate: Trees with one or more PRFs due to their size, shelter, protection, conditions or surrounding habitat but unlikely to support a roost of high conservation status.

⁴ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

- High: Trees with one or more PRFs which are obviously suitable for larger numbers of bats on a more regular basis due to their size, shelter, protection, conditions or surrounding habitat.

In addition, any trees with roost potential were searched for evidence of bats (as far as possible from ground level). Evidence searched for included:

- Staining, beneath or around a hole/ crack, caused by the natural oils in bat fur;
- Scratch marks around a hole/ crack, caused by bat claws;
- Bat droppings beneath a hole/ crack, 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.

2.4 Potential Bat Roost Surveys

Two roost surveys of the tree line between Baypoint Sports Club and Stonelees Nature Reserve, where it lies within and immediately adjacent to the RLB, were undertaken in accordance with BCT guidelines for trees with moderate roost suitability. One dusk survey and one dawn survey were carried out in May 2018, with a period of two weeks in between the surveys (see Table 2-1 for survey dates, times and weather conditions).

Surveyors were positioned at either end of the relevant section of the tree line, on the southern side (see Drawing 1 for approximate positions). They then closely watched the trees from 15 minutes before dusk until at least 90 minutes afterwards, or in the case of dawn surveys, from at least 90 minutes prior to sunrise until daylight. All bat activity was recorded using frequency division, zero crossing and/ or heterodyne bat detector equipment, identifying bats to species where possible. In addition, recordings were made and the species confirmed through computer analysis (using AnaLookW software), as required.

2.5 Bat Activity Surveys

In accordance with current BCT guidelines, bat activity surveys included a combination of manual transect surveys and static detector surveys. Further details for each survey type are provided below.

2.5.1 Manual Transect Activity survey

A transect route was identified prior to the 2017 surveys that covered all potentially valuable habitats for foraging and commuting bats within the survey area.

Due to lack of access to Pegwell Bay Country Park and Stonelees Nature Reserve, only one of the two transects surveyed in 2017 was covered in May 2018, Transect 2 (T2). This covered the grounds of Baypoint Sports Club and was approximately 800m in length (see Drawing 1). Due to the shortness of the route, two laps were undertaken within the relevant time period, effectively providing double the level of coverage.

Eight stopping points were incorporated into the route, where the surveyors would wait for five minutes in order to maximise opportunities to detect bat activity. The order in which the stopping points were visited was varied from previous occasions in order to capture a better overall picture of the most profitable areas for foraging activity, and to increase the probability of observing any emergence from roosts, or any swarming or commuting behaviour prior to roost re-entry. All of the stopping points were re-visited on the second lap of the transect route.

The transect activity survey was undertaken concurrently with the dawn roost survey of the tree line between Baypoint Sports Club and Stonelees Nature Reserve. A heterodyne detector was used to listen out for bat calls and an Anabat Express bat detector was used to record the calls.

The transect survey commenced two hours before sunrise and finished at sunrise (see Table 2-1 for dates, times and weather conditions).

2.5.2 Automated Static Activity Survey

Three Anabat Express bat detectors were installed in locations previously used as part of the bat survey programme undertaken in 2017. The detectors were left in situ between the 2nd and 17th May 2018 in order to identify bat activity throughout the night at each location. 15 nights of recording represents considerably more than the five nights per month recommended by current BCT guidelines.

In total recording was carried out over the 15 detector/ nights at the following locations:

- BD3 was located at the western end of the tree line along the northern boundary of the Baypoint sports field, adjacent to Stonelees Nature Reserve.
- BD4 was situated mid-way along the tree line along the northern boundary of the Baypoint sports field, adjacent to Stonelees Nature Reserve.
- BD5 was midway along the eastern tree line around the boundary of the Baypoint sports field.

The locations of these points are illustrated in Drawing 1 and survey dates are provided in Table 2-1.

2.6 Data Analysis

This report refers to ‘registrations’ or ‘bat passes’. These are a single sound files captured by an automated detector, and do not necessarily relate to the numbers of bats that may be present. A large number of registrations can equally result from one bat passing a detector many times/feeding overhead, or many bats passing.

Recorded data were analysed using Anlook software (Titley Electronics) by experienced personnel from SLR using Russ (2012)⁵ to assign species where possible and in accordance with the following:

- Due to the difficulties of separating *Myotis* species from sonograms alone, *Myotis* calls have not been identified beyond genus level.
- For the purpose of differentiating common (*Pipistrellus pipistrellus*) and soprano pipistrelle bat, calls with a peak frequency between 42 kHz and 50 kHz have been classified as common pipistrelle. 51 kHz and above as soprano pipistrelle. Calls at 41 kHz or less are considered to be Nathusius’ pipistrelle (*Pipistrellus nathusii*). Some pipistrelle registrations may however remain ambiguous; such registrations were assigned to “pipistrelle species”.
- *Nyctalus* and *Eptesicus* calls can easily be misclassified; particularly those of Leisler’s bat (*Nyctalus leisleri*) and serotine (*Eptesicus serotinus*). Due to the similarity of the calls it is not always possible to accurately differentiate between the three species and in such cases they have been labelled as “big bat” in the Anabat analysis.

All calls which were ambiguous or potentially relating to rare species were subject to a double check by a second experienced bat worker from SLR.

⁵ Russ, J. (2012): British Bat Calls: A guide to species identification, Pelagic Publishing, ISBN 978-1907807251

2.7 Survey Dates, Times and Weather Conditions

Bat activity is influenced by seasonality, sunset and sunrise times, and weather conditions. Current BCT guidelines recommend surveys should be undertaken in conditions close to optimal, which includes: sunset temperature above 10°C and no rain or strong wind, as emergence/ re-entry and foraging activity patterns may be affected. The survey dates and weather conditions are detailed in Table 2-1.

Table 2-1: Survey Dates, Times and Weather Conditions

Survey	Sunset / Sunrise Time	Survey Date	Survey times		Temp. (°C)	Wind	Cloud (in eighths)
Dusk emergence	20.18	2 nd May 2018	Start Time	19.55	10	8mph W	6/8
			End Time	21.48	8	7mph W	0/8
Dawn emergence / Manual activity transect surveys	05.00	17 th May 2018	End Time	04.59	8	16mph NE	5/8
			Start Time	02.49	8	16mph NE	5/8
Static Automated Activity Surveys (BD3, BD4, BD5)		2 nd May – 17 th May 2018					

2.8 Survey Personnel

All of the ecologists involved in the survey work are experienced in undertaking bat surveys. The automated static and manual transect activity surveys were led by Natasha Nixon, a Senior Ecologist with SLR with approximately ten years' experience and a full Member of Chartered Institute of Ecology and Environmental Management (MCIEEM) and a Chartered Environmentalist (CEnv).

The preliminary tree assessments, potential roost feature surveys and tree roost surveys were led by Kate Taylor (Natural England Class Licence Registration Number: 2015-13377-CLS-CLS (Class 2)). Dale Broadbent MCIEEM undertook the data analysis for the activity and roost surveys. Dale holds a Natural England class two survey licence for bats (2015-12071-CLS-CLS), is accredited to use a Natural England's Low Impact Class Licence (RC017) and has over nine years' experience as an ecological consultant.

2.9 Survey Limitations

2.9.1 Preliminary Roost Assessment / Potential Roost Feature (PRF) Inspection

Trees

The initial assessments were undertaken during the spring, when foliage was present on trees. This has the potential to hide or obscure features that may be present. Given the age and height of the trees, the trunks and branches could be observed, therefore this was not considered to be a limitation to the assessment.

2.9.2 Roost surveys

The dusk and dawn surveys were undertaken within a two week period early in the bat active season. Both surveys were undertaken at temperatures slightly below those recommended in current BCT guidelines. However, bats were active during those nights and therefore had the trees been in use as roosting sites

emergence/ re-entry activity would have been recorded. Therefore no significant constraints are considered pertinent to these surveys.

2.9.3 Manual Transect Activity Surveys

The survey was undertaken during slightly cooler conditions than recommended in current BCT guidelines. However, as noted above bat activity was recorded and when considered in combination with the previous surveys undertaken in 2017 and the automated static activity surveys, this is not believed to be a constraint for the purpose of assessment.

3.0 Results

3.1 Preliminary Roost Assessment / Potential Roost Feature (PRF) Inspection

3.1.1 Trees

The trees within the footprint of the proposed new access route to Baypoint Sports Club were considered to be of negligible potential to the south of the ditch and peripheral fence (see Photograph 1), and of low potential to the north of the fence due to the prevalence of ivy growth. A bat box was identified amongst the group of trees which required inspection by a licence holder for bats. The box was full of old leaves and debris, with no evidence of bat use, as shown in Photographs 2 and 3 below.

Photograph 1

Trees within Red Line Boundary of proposed new access into Baypoint Sports Club



Photographs 2 and 3

Bat box within the footprint of the proposed new access into Baypoint Sports Centre



3.2 Roost Surveys

The roost surveys undertaken covered the tree line between the Baypoint Sports Club site and Stonelees Nature Reserve, where it lies within or immediately adjacent to the RLB (see Drawing 1).

Although bat activity was recorded, no bats were seen emerging from or returning to the trees during either survey. A summary of the passes recorded during the dusk and dawn surveys is provided in Table 3-1 below. Visual observations during the survey indicate that a large proportion of the bat passes recorded were generated by a small number of bats repeatedly foraging close to the survey locations.

Table 3-1 Summary of Results of Tree Roost Surveys

Date	Survey	Bat passes registered
02/05/2018	Dusk roost emergence	279 Common pipistrelle 33 Soprano pipistrelle 208 Nathusius' pipistrelle 1 Pipistrelle species
17/05/2018	Dawn roost emergence	181 Common pipistrelle 118 Soprano pipistrelle 1 Nathusius' pipistrelle 1 Pipistrelle species 1 Serotine and 3 <i>Myotis</i>

3.3 Manual Activity Transect Surveys

The results of the manual activity survey undertaken on 17th May 2018 are detailed in Table 3-2.

Table 3-2: Summary of Bats Observed and Activity Recorded during Manual Transect Survey

Survey Description and Dates	Species recorded and Total Passes Registered / Observed	
	T1 Pegwell Bay CP and Stonelees NR	T2 Baypoint Sports Club
17 th May 2018 dawn manual activity transect survey	No access	Three faint pipistrelle sp. bat passes heard between points D and E at 04:22. No bat passes were registered on the Anabat Express.

3.4 Automated Static Activity Surveys

A summary of the bat species identified and number of passes recorded at each static recording location during the 15 night survey period is shown in Table 3-3. Refer to Appendix 01 for more detailed information on the level of bat activity recorded on each night at each location.

Table 3-3: Summary of Bat Activity per Location

Species	BD3	BD4	BD5
Pipistelle sp.	34	21	27
Soprano pipistrelle	1095	521	139
Common pipistrelle	3464	1121	100
Nathusius' pipistrelle	1195	184	21
Leisler's	0	0	0
Noctule	3	5	4
Serotine	1	6	1
Big bat species	2	6	2
<i>Myotis</i> species	63	26	99

As can be seen from Table 3-3, the automated static detectors at locations BD3, BD4 and BD5 recorded similar species over the 15 night period, although the level of activity was much greater at BD3 than at the other two locations. This may reflect the relatively high levels of foraging activity that was seen in this area during the dusk emergence and dawn return surveys (Section 3.2).

Levels of bat activity over the two week survey period were variable (see Appendix 01), peaking on the 8th and 14th May. This is likely to reflect the weather conditions and temperatures over the survey period. However, Nathusius' pipistrelle activity was particularly variable over the 15 night survey period, with 208, 310, 228 and 176 registrations recorded respectively on the nights of the 2nd, 4th, 6th and 8th May. After the 8th May, activity dropped off significantly and stayed relatively low. This could indicate that these bats were taking the opportunity to forage in this area whilst en route from winter to summer roost sites.

In order to facilitate comparison with the results of the 2017 surveys (see Section 3.4.1) the average number of bat passes per night has been calculated and is presented in Table 3-4. The bat passes per night figure was derived by taking the total number of bat passes by each species at each location and dividing these figures by the total number of nights over which recording took place at that location.

Table 3-4: Average Number of Bat Passes per Night, by Species, at each Static Bat Detector Survey Point

Species	BD3	BD4	BD5
Pipistrelle sp.	2.33	1.4	1.8
Soprano pipistrelle	80.87	34.73	9.27
Common pipistrelle	236.80	74.73	6.67
Nathusius' pipistrelle	79.73	12.27	1.4
Leisler's	0	0	0

Species	BD3	BD4	BD5
Noctule	0.2	0.33	0.27
Serotine	0.07	0.4	0.07
Big bat species	0.13	0.4	0.13
<i>Myotis</i> species	4.20	1.73	6.6

3.4.1 Comparison with Results of 2017 Static Activity Surveys

The average numbers of bat passes per night (all species combined) in 2017 and 2018 are shown in Table 3.5.

Table 3-5 Average Bat Passes per Night (All Species) in 2017 and 2018

Fixed automated detector points:	BD3	BD4	BD5
Average bat passes per night in 2017	231.19	162.7	243.3
Average at passes per night in 2018	404.33	125.99	26.21

Table 3-5 indicates that the level of activity was significantly greater at location BD3 during May 2018 than during the survey in 2017. The majority of this additional activity relates to pipistrelle species with 399.73 passes per night in 2018 versus 192.2 in 2017. This included much greater levels of activity by *Nathusius' pipistrelle*, with an average of 79.73 passes per night, which compares with an average of 11.4 passes per night at the same location in 2017. Based on observations during the emergence and return surveys it is considered likely that most of the additional activity relates to a relatively small number of bats regularly foraging in this area. Foraging was also regularly observed in this area during the 2017 manual activity transect surveys. Activity at locations BD4 and BD5 was much lower in 2018 than in 2017.

No additional species to those recorded during the 2017 surveys were recorded in May 2018. Common, soprano and *Nathusius' pipistrelle* were the most commonly recorded species, which tallies with the findings from the 2017 surveys. Big bat species were recorded less frequently in May 2018 than during 2017. The average numbers of passes for the sum of all the big bats registered per night in 2017 were: 27.86 at BD3; 2.1 at BD4; and 5.7 at BD5. The May 2018 survey recorded an average of between 0.4 and 1.13 passes per night at the same locations. Furthermore, *Leisler's* were occasionally recorded at each of the static survey locations in 2017 but no recordings of *Leisler's* bats were confirmed during sound analysis from the survey in May 2018. *Myotis* species were recorded slightly less frequently in May 2018 than in 2017; 4.2, 1.73 and 6.6 passes per night were recorded on average at points BD3, BD4 and BD5 in May 2018. Average passes per night at the same points were 11.13, 3.8 and 1.2 respectively during the 2017 survey period.

4.0 Summary and Conclusions

4.1 Surveys Undertaken

A range of bat surveys were undertaken at Baypoint Sports Club in May 2018 to supplement previous bat surveys undertaken during the period August to November 2017. These included preliminary assessments of bat roost potential along the route of a proposed new access road; nocturnal roost surveys of a line of trees for which detailed inspections were not possible in 2017; manual transect activity surveys; and automated static activity surveys.

Requests for a permit to survey areas within Pegwell Bay Country Park and Stonelees Nature Reserve were declined by KWT and therefore it was not possible to undertake manual transect or automated static activity surveys there in May 2018.

4.2 Bat Species Recorded

The bat species assemblage recorded comprised at least six species; it is not always possible to identify *Myotis* bats to species level from sonograms alone and therefore identification of *Myotis* bats to species level was not attempted, meaning more than one *Myotis* species may have been present. The six species (or species groups) identified were:

- Common pipistrelle;
- Soprano pipistrelle;
- Nathusius' pipistrelle;
- Noctule;
- Serotine; and
- *Myotis* species.

Surveys undertaken in 2017 also confirmed Leisler's bats. However, this species was not recorded during the May surveys.

4.3 Bat Roosts

No roost sites were observed during the tree inspection or during the nocturnal roost surveys and no activity indicative of roosts was identified during the manual transect surveys.

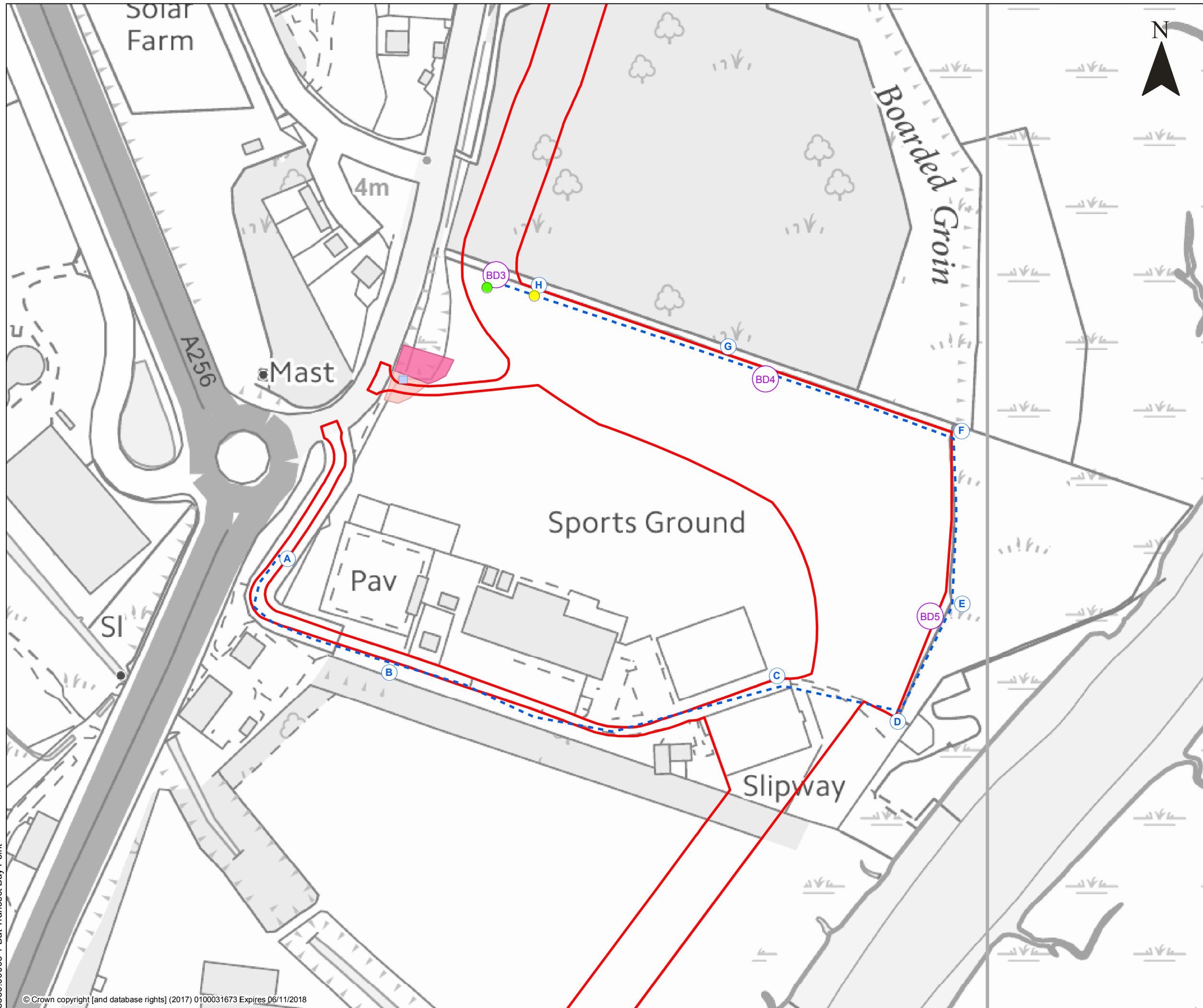
A small number of trees which could potentially be affected by the proposed new access into the Baypoint Sports Club site were identified as having negligible - low potential to support bat roosts. In accordance with current BCT guidelines no further surveys are required for these trees, although appropriate precautions should be undertaken during felling of trees with low potential.

4.4 Bat Activity Surveys

Very little bat activity was recorded during the transect survey undertaken in May 2018. Species recorded during the automated surveys were similar to those recorded in 2017, although no Leisler bats were confirmed as present in 2018. The level of activity recorded at BD3 was greater during May 2018 than in 2017, but lower at points BD4 and BD5 in 2018 than 2017. The additional activity recorded at BD3 relates primarily to pipistrelle species and is likely to reflect regular foraging activity in this area.

DRAWINGS

Drawing 1: Bat Surveys May 2018



LEGEND	
	ONSHORE SITE BOUNDARY
	LOCATIONS OF AUTOMATED STATIC BAT DETECTORS
	STOP POINTS
	TRANSECT ROUTE
	BAT BOX
	POTENTIAL ROOST SURVEYOR 1
	POTENTIAL ROOST SURVEYOR 2
POTENTIAL ROOST ASSESSMENT AREAS	
	TREES WITH LOW POTENTIAL
	TREES WITH NEGLIGIBLE POTENTIAL

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THANET EXTENSION
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ADDITIONAL BAT SURVEY REPORT

**BAYPOINT SPORTS CLUB
 TRANSECT ROUTE (TRANSECT 2);
 STATIC DETECTOR LOCATIONS;
 TREE SURVEYS**

5356.00003 1 Bat Transect Bay Point

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APPENDIX 01 - BAT SURVEY DATA

Automated Static Activity Surveys

Table A.1
Automated Static Activity Surveys

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
BD3	TR 33719 62426	02/05/18	1 pipistrelle species 33 soprano pipistrelle 279 common pipistrelle 208 Nathusius' pipistrelle
		03/05/18	1 pipistrelle species 115 soprano pipistrelle 252 common pipistrelle 34 Nathusius' pipistrelle 2 noctule 2 <i>Myotis</i> species
		04/05/18	16 pipistrelle species 93 soprano pipistrelle 139 common pipistrelle 310 Nathusius' pipistrelle 2 <i>Myotis</i> species
		05/05/18	2 pipistrelle species 94 soprano pipistrelle 197 common pipistrelle 68 Nathusius' pipistrelle 1 serotine 1 <i>Myotis</i> species
		06/05/18	2 pipistrelle species 67 soprano pipistrelle 226 common pipistrelle 228 Nathusius' pipistrelle 1 <i>Myotis</i> species
		07/05/18	2 pipistrelle species 87 soprano pipistrelle 224 common pipistrelle 69 Nathusius' pipistrelle 1 'big bat' species 12 <i>Myotis</i> species

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
BD3 cont'd		08/05/18	2 pipistrelle species 144 soprano pipistrelle 448 common pipistrelle 176 Nathusius' pipistrelle 1 'big bat' species 1 noctule 8 <i>Myotis</i> species
		09/05/18	4 pipistrelle species 60 soprano pipistrelle 332 common pipistrelle 29 Nathusius' pipistrelle 1 'big bat' species 6 <i>Myotis</i> species
		10/05/18	1 pipistrelle species 35 soprano pipistrelle 112 common pipistrelle 5 Nathusius' pipistrelle 3 <i>Myotis</i> species
		11/05/18	26 soprano pipistrelle 86 common pipistrelle 2 Nathusius' pipistrelle 4 <i>Myotis</i> species
		12/05/18	2 pipistrelle species 76 soprano pipistrelle 104 common pipistrelle 2 Nathusius' pipistrelle 10 <i>Myotis</i> species
		13/05/18	30 soprano pipistrelle 133 common pipistrelle 11 Nathusius' pipistrelle 6 <i>Myotis</i> species
		14/05/18	103 soprano pipistrelle 580 common pipistrelle 40 Nathusius' pipistrelle 5 <i>Myotis</i> species
		15/05/18	103 soprano pipistrelle 580 common pipistrelle 40 Nathusius' pipistrelle

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
			5 <i>Myotis</i> species
BD3 cont'd		16/05/18	105 soprano pipistrelle 171 common pipistrelle 14 Nathusius' pipistrelle 2 <i>Myotis</i> species
BD4	TR 33854 62376	02/05/18	9 soprano pipistrelle 8 common pipistrelle 1 <i>Myotis</i> species
		03/05/18	4 soprano pipistrelle 10 common pipistrelle 6 Nathusius' pipistrelle 1 noctule 2 <i>Myotis</i> species
		04/05/18	7 soprano pipistrelle 26 common pipistrelle 5 Nathusius' pipistrelle 4 <i>Myotis</i> species
		05/05/18	20 soprano pipistrelle 81 common pipistrelle 9 Nathusius' pipistrelle 2 <i>Myotis</i> species
		06/05/18	1 pipistrelle species 7 soprano pipistrelle 18 common pipistrelle 3 Nathusius' pipistrelle 1 <i>Myotis</i> species
		07/05/18	1 pipistrelle species 12 soprano pipistrelle 8 common pipistrelle 3 Nathusius' pipistrelle 1 noctule
		08/05/18	5 pipistrelle species 26 soprano pipistrelle 49 common pipistrelle 105 Nathusius' pipistrelle 1 'big bat' species 2 <i>Myotis</i> species

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
		09/05/18	5 soprano pipistrelle 4 common pipistrelle
		10/05/18	4 soprano pipistrelle 3 common pipistrelle 1 Nathusius' pipistrelle 1 'big bat' species 2 noctule
		11/05/18	1 pipistrelle species 23 soprano pipistrelle 89 common pipistrelle 1 Nathusius' pipistrelle 1 'big bat' species 1 noctule 1 serotine
		12/05/18	1 pipistrelle species 11 soprano pipistrelle 4 common pipistrelle
		13/05/18	5 pipistrelle species 53 soprano pipistrelle 6 common pipistrelle 4 Nathusius' pipistrelle 10 <i>Myotis</i> species
		14/05/18	3 pipistrelle species 237 soprano pipistrelle 645 common pipistrelle 42 Nathusius' pipistrelle 1 'big bat' species 2 serotine 3 <i>Myotis</i> species
		15/05/18	4 pipistrelle species 25 soprano pipistrelle 11 common pipistrelle 5 Nathusius' pipistrelle 2 'big bat' species 2 serotine 1 <i>Myotis</i> species
		16/05/18	78 soprano pipistrelle 159 common pipistrelle

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
			1 serotine
BD5	TR 33967 62262	02/05/18	1 soprano pipistrelle 3 common pipistrelle
		03/05/18	3 pipistrelle species 3 soprano pipistrelle 5 common pipistrelle 1 'big bat' species
		04/05/18	6 common pipistrelle 2 Nathusius' pipistrelle 2 <i>Myotis</i> species
		05/05/18	3 pipistrelle species 3 soprano pipistrelle 6 common pipistrelle 4 <i>Myotis</i> species
		06/05/18	2 pipistrelle species 1 common pipistrelle
		07/05/18	4 common pipistrelle 4 noctule 6 <i>Myotis</i> species
		08/05/18	15 pipistrelle species 1 soprano pipistrelle 17 common pipistrelle 18 Nathusius' pipistrelle 4 <i>Myotis</i> species
		09/05/18	1 soprano pipistrelle 28 common pipistrelle 5 <i>Myotis</i> species
		10/05/18	1 pipistrelle species 3 soprano pipistrelle 1 'big bat' species
		11/05/18	5 soprano pipistrelle 10 common pipistrelle 12 <i>Myotis</i> species
		12/05/18	2 common pipistrelle
		13/05/18	3 pipistrelle species

Location Reference	Approximate Grid reference	Dates (night beginning)	Data Analysis of Registrations
			57 soprano pipistrelle 5 common pipistrelle 1 Nathusius' pipistrelle 33 <i>Myotis</i> species
		14/05/18	64 soprano pipistrelle 10 common pipistrelle 27 <i>Myotis</i> species
		15/05/18	1 soprano pipistrelle 2 common pipistrelle 1 serotine 6 <i>Myotis</i> species
		16/05/18	1 common pipistrelle

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