

**RWE Renewables UK Dogger Bank
South (West) Limited**

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South (East) Limited**

Dogger Bank South Offshore Wind Farms

Environmental Statement

Volume 7

Appendix 18-6 Bats Report - Monthly Activity Transects

Part 1 of 2

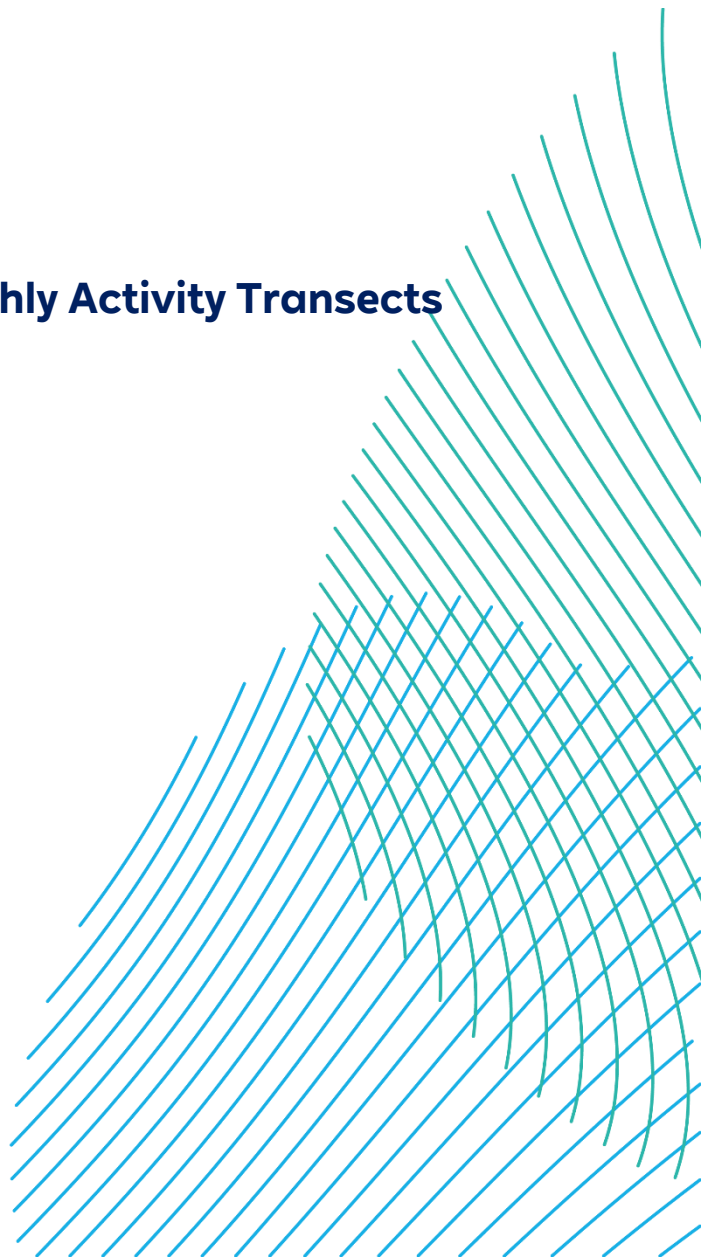
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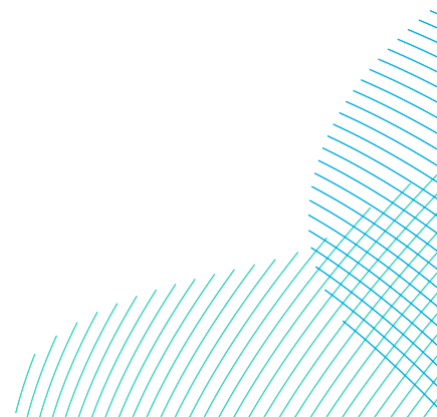
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Bat Surveys: Transects and Static Monitoring Dogger Bank South Offshore Wind Farms

ISSUE RECORD

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The information and advice contained in this report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Peak Ecology is accredited under ISO9001 and as such this report follows the styles and formatting template set out within our Quality Management Form.

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EXECUTIVE SUMMARY

Overview and methodology

This report has been prepared by Peak Ecology Ltd with Royal HaskoningDHV on behalf of RWE Renewables UK. It provides the results of bat transect and static monitoring surveys along ten pre-determined routes within the Bat Survey Area associated with the Dogger Bank South (DBS) Offshore Wind Farms during the 2023 survey season.

Each transect route was surveyed once a month from April to October inclusive. Static bat monitoring devices were deployed for a minimum of five nights per month, with one device deployed per transect route at a designated location.

Analysis of bat echolocation data recorded during the transects and by the static monitoring devices was completed using Kaleidoscope Pro bat analysis software. Each bat call was run through the software's AutoID function before being manually checked to ensure that the correct species labels were added to each data file. Surveyor observations were used in conjunction with the analysed bat call data to highlight particular features and areas with the highest levels of bat activity.

Results

The survey results varied across the transects, static detector locations and season. A total of seven bat species were identified to species level during transect and static monitoring surveys, with some bats identified to genus level (*Pipistrellus* and *Myotis* sp.) where it was not possible to identify to species level. Species distribution was largely consistent across the different transects, with common pipistrelle the dominant species along many transects.

Habitats frequently used by foraging and commuting bats included the River Hull, field drains, boundary hedgerows and woodland edges. Features of interest which were observed to experience higher levels of bat activity or more frequent usage by bats have been highlighted.

Recommendations

Where sections of hedgerows or other linear boundary features are required for removal, these should be kept to the minimum possible length to reduce the potential to disrupt existing bat flight paths and connectivity to the wider landscape.

General good working methods should be followed throughout the construction period including not carrying out works after dusk or before dawn, not running generators and machinery that emit significant noise levels through the night, and minimising artificial light spillage onto linear features as discussed which can disrupt bat flight paths and commuting routes.

To minimise any negative effects on bat foraging habitat it is recommended that any permanent lighting to be installed within the development post-construction, is bat friendly. It is recommended that a lighting scheme should be designed in accordance with Guidance Note 08/23: *Bats and artificial lighting at night (BCT & ILP, 2023)* to ensure minimal impact to bat commuting and foraging routes.

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1 INTRODUCTION

1.1 Proposed Works

RWE Renewables is intending to develop the proposed DBS East and DBS West offshore wind farm projects, collectively known and referred to as Dogger Bank South (DBS) offshore wind farms (herein referred to as the Projects). The Projects will require a buried onshore export cable between the landfall location and the onshore grid connection points at Creyke Beck, west of Beverley, this area with associated infrastructure is referred to as the Onshore Development Area.

1.2 Scope of Report

This report has been prepared by Peak Ecology Ltd with Royal HaskoningDHV on behalf of RWE Renewables UK. It provides the results of bat transect surveys and static monitoring surveys within the Bat Survey Area associated with the Projects.

The purpose of this report is to:

- Detail the methods used to undertake the bat transects and static monitoring surveys;
- Include the survey details, surveyors, weather conditions and any constraints to the surveys;
- Provide the results of the surveys;
- Identify key areas of bat activity in the vicinity of the Bat Survey Area;
- Identify potential impacts to roosting and foraging bats,
- Outline any key recommendations for mitigation and/or avoidance measures where appropriate, and
- Identify any need for additional survey work.

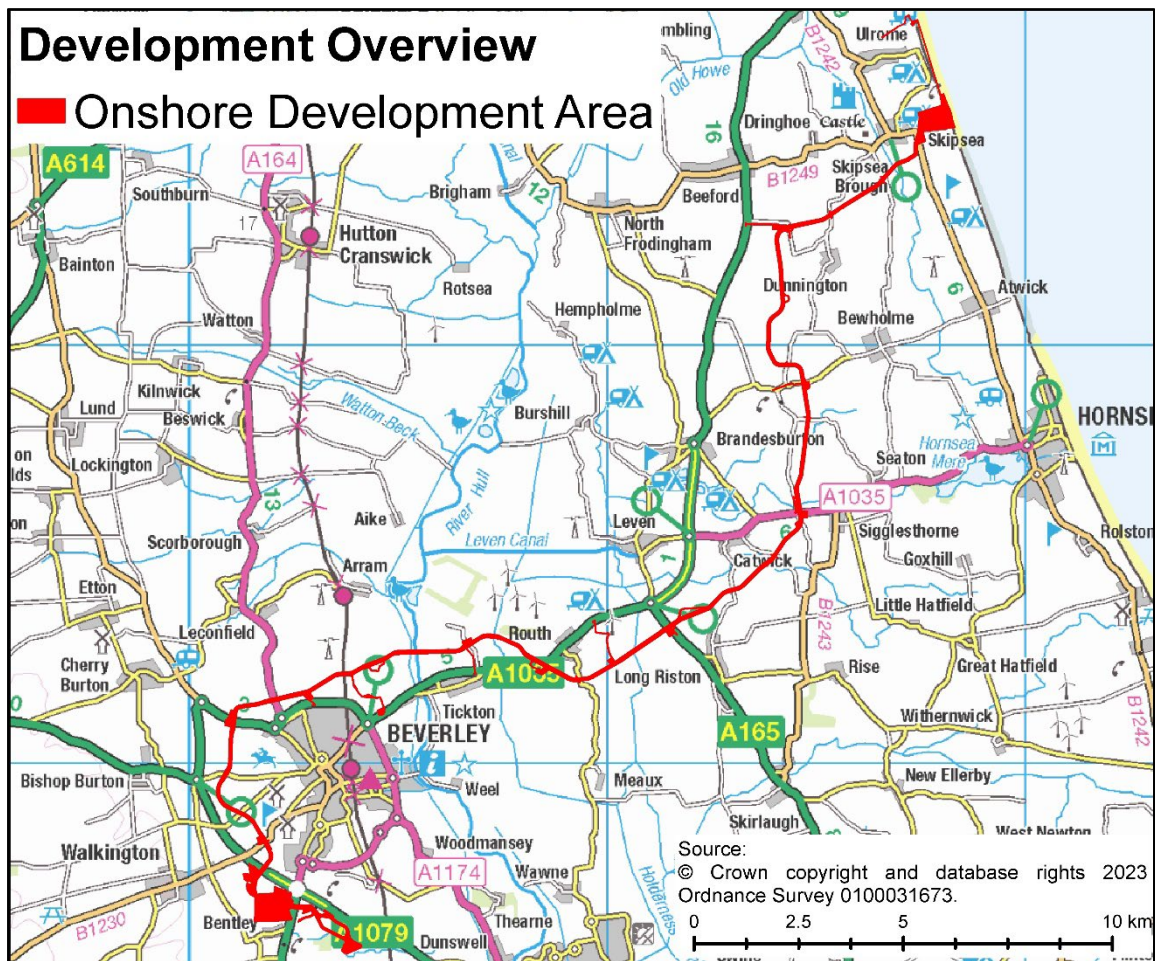
As a data report this will not include an evaluation of impacts or details of mitigation; this will be addressed in the Environment Impact Assessment process.

The approach to this survey follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2013) and the British Standards Institution (BSI, 2013).

1.3 Survey Area

The transect routes, herein the Bat Survey Area, runs north east to south west, from Skipsea to south of Beverley, East Yorkshire, following the Onshore Development Area (i.e. the cable Route Corridor). The Onshore Development Area has been refined during the course of the survey programme. This report is based on the final Onshore cable area, as agreed in October 2023, which is presented in **Figure 1**. Surveys undertaken in 2022 were limited to public rights of way, access to private land and route refinements have resulted in the data from 2022 being largely redundant.

Figure 1: Dogger Bank South Offshore Wind Farms Bat Survey Area



The ten transect routes surveyed in the 2023 season are presented in Appendix A. The individual survey areas are described in more detail below.

Transect 1 was approximately 4.4km in length and took a circular route beginning just east of Skipsea, heading to a vantage point at the edge of the coast, and then continuing through arable fields and grassland to reach Stream Dike. This transect was completed fully on roads and PROW.

Transect 2 was approximately 3.5km in length and followed a route between Nunkeeling Priory and land north-west of Dunnington. The route zig-zagged across a series of arable fields, following hedgerows and the edge of a small woodland copse.

Transect 3 was an approximately 3.5km long circular route on land north-west of Sigglesothorne. The route followed tree-lined roads, hedgerows bordering arable fields, and through a small woodland copse.

Transect 4 was approximately 5km in length and took a linear route across land north-east of Routh. The route followed hedgerows and ditches through predominately arable fields.

Transect 5 was approximately 4.6km long, located between Routh and Tickton. The transect followed a circular route along arable field boundaries, hedgerows, a small woodland copse and the edge of Holderness Drain.

Transect 6 was approximately 4.7km long and followed a route between Hull Bridge and land north of Tickton. The route ran adjacent to the east of the River Hull, then continued along arable boundary hedgerows and tree-lined roads.

Transect 7 was approximately 4.7km in length and followed a route on immediately north of Beverley. The transect followed a long linear footpath lined with trees on both sides, arable field boundaries and Sisterbeck Drain.

Transect 8 followed a linear route of approximately 4.9km on land west of Beverley. The route followed arable field hedgerows, the edge of a moderately sized woodland copse, and the boundary Beverley Westwood common land.

Transect 9 was approximately 4.6km long and took a circular route south-west of Beverley, following arable field hedgerows, woodland copse edges and crosses several large roads, including the A1079, via bridges.

Transect 10 followed a linear route approximately 1.5km south of Beverley. The route itself was approximately 5.1km in length and followed almost entirely arable field hedgerows and an occasional woodland edge.

1.4 Legislation

Bats and their roosts are fully protected under the Conservation of Habitats and Species Regulations 2017 and under the Wildlife and Countryside Act 1981 (as amended) through inclusion in Section 1 (Schedule 5). Bats are also a UK Post-2010 Biodiversity Framework species. As such it is an offence to:

- Intentionally or deliberately kill, injure or capture (or take) bats:
- Deliberately disturb bats (whether in a roost or not);
- Recklessly disturb roosting bats or obstruct access to their roosts; or
- Damage or destroy bat roosts.

2 METHODOLOGY

2.1 Desk Study

A desk study was undertaken using records provided by the North and East Yorkshire Ecological Data Centre (NEYEDC). Additionally, MAGIC was used to obtain any bat European Protected Species (EPS) licence returns from Natural England that were within the Bat Survey Area. The desk study has been reported in a standalone document (Peak Ecology, 2022a) but relevant information is included in this report. All data has been included from within 2km of the Bat Survey Area.

2.2 Bat Transect Surveys

Ten transect routes were designed, and one static monitoring device location per transect selected based on aerial imagery in order to survey a representative sample of habitat types within the and to ensure coverage of particular features of interest typically utilised by bats such as watercourses, drains, woodland edges and hedgerows.

The habitats within the were largely of low suitability for foraging and commuting bats, however within each transect route were areas of moderate suitability habitat such as woodland parcels or mature hedgerows which provided connectivity to the wider environment. During the bat transect surveys undertaken in the 2022 survey season, the transect routes were restricted to public rights of way which at times lay some distance beyond the Bat Survey Area (Peak Ecology, 2022b). As a result, the routes selected covered a wider range of habitat types generally of higher suitability for foraging and commuting bats than those habitats present within the 2023 transect routes, and also passed through small villages which had higher potential for roosting bats to be detected upon emergence. It was decided that the 2023 bat surveys be conducted monthly to continue with the level of survey undertaken in 2022 and that a single static location was sufficient coverage given the increased data capture period.

Survey methods followed industry standard, outlined by the Bat Conservation Trust (Collins (ed), 2016). Each survey involved two surveyors walking a pre-determined route within the Bat Survey Area. Surveyors were equipped with hand-held heterodyne bat detectors and Titley Scientific Anabat Swift or Anabat Chorus detector to record and GPS-tag any detected bat calls. Surveyors also recorded details of observations during the survey including bat flight lines, number of individual bats and their behaviour.

Surveys lasted for approximately 2 – 2.5 hours, with each route being between 3.5 - 5km. The transects were walked at a fairly constant pace, and the routes reversed on some survey visits in order to sample different habitats at different times and to overcome the limitation of light loss over the course of the survey which can result in a reduction in visibility of bats for the surveyors.

Transect surveys were generally undertaken at dusk, however good practice guidelines state '*At least one of the surveys should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period*', which were undertaken once per transect in either June or July. Dusk surveys commenced at approximately sunset, and pre-dawn surveys finished at approximately sunrise. Survey timings and weather conditions were noted on every survey visit. Surveys

were scheduled to avoid unsuitable weather conditions, such as strong wind or rain, and poor visibility.

The routes generally required access to private land, with only one transect (T1) being completed entirely on public rights of way (PRoW). An overview of all transect routes is presented within Appendix A.

2.2.1 Survey Dates

The surveys were undertaken between April and October 2023 inclusive. Dates of each survey visit are presented in **Table 1**. Information regarding transect survey conditions can be found within Appendix B.

Table 1: Survey dates of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms

No	Survey Dates								
	April	May	June (dusk)	June (dawn)	July (dusk)	July (dawn)	Aug	Sept	Oct
T1	12/04/23	15/05/23	20/06/23	21/06/23	11/07/23	-	10/08/23	13/09/23	10/10/23
T2	26/04/23	22/05/23	20/06/23	21/06/23	04/07/23	-	15/08/23	25/09/23	09/10/23
T3	25/04/23	30/05/23	20/06/23	21/06/23	03/07/23	-	08/08/23	25/09/23	09/10/23
T4	13/04/23	22/05/23	21/06/23	22/06/23	05/07/23	-	08/08/23	26/09/23	-
T5	17/04/23	11/05/23	21/06/23	22/06/23	13/07/23	-	09/08/23	07/09/23	10/10/23
T6	17/04/23	23/05/23	21/06/23	22/06/23	13/07/23	-	09/08/23	07/09/23	09/10/23
T7	18/04/23	31/05/23	27/06/23	28/06/23	12/07/23	-	09/08/23	06/09/23	04/10/23
T8	18/04/23	23/05/23	27/06/23	28/06/23	12/07/23	-	10/08/23	06/09/23	03/10/23
T9	19/04/23	24/05/23	29/06/23	-	11/07/23	12/07/23	16/08/23	05/09/23	03/10/23
T10	19/04/23	24/05/23	29/06/23	-	11/07/23	12/07/23	10/08/23	05/09/23	03/10/23

2.3 Bat Static Monitoring Surveys

One Anabat Chorus static monitoring device was positioned in a designated location along each transect route. The locations of each static detector are presented on an overview map in Appendix A, and the grid reference locations are below in **Table 2**. Information regarding transect survey conditions can be found within Appendix C.

Table 2: Static monitoring device locations per transect for Dogger Bank South Offshore Wind Farms Bat Survey Area

Transect	Grid Reference
T1	TA 16936 54070
T2	TA 14530 50179
T3	TA 14525 46097
T4	TA 09565 42209
T5	TA 07290 43052
T6	TA 05358 42708
T7	TA 02511 41508
T8	TA 01177 38819
T9	TA 02184 36729
T10	TA 03715 35856

The detectors were programmed to record any passing bat calls on “night only” mode which records from approximately half an hour before sunset, throughout the night, until half an hour after sunrise. The detectors were generally left out for a week in order to record five days of bat activity. The detectors were then collected, and any recordings analysed.

2.4 Sound Analysis

Recordings from transect and static monitoring surveys were subsequently analysed with Wildlife Acoustics Kaleidoscope Pro bat analysis software (version 5.6.0c). Each data file was run through the software’s AutoID function, which assigned a likely species label based on an algorithm, which was manually checked to ensure that the correct species labels were added to each data file.

Sound analysis of bat calls to species level is not always possible and, in some instances, calls are only identified to genus level. This is particularly the case for the *Myotis* species. It is difficult to distinguish between the echolocation calls of whiskered and Brandt’s bats, therefore these have been labelled throughout as Whiskered/Brandt’s. Some *Myotis* species, for example Daubenton’s bat, can be identified through a combination of recorded echolocation calls and surveyor observations of behaviour and habitat where the bat was seen.

Where it has not been possible to identify bats to species level, these calls have been labelled at genus level (i.e. *Myotis* or *Pipistrellus*).

2.5 Survey Limitations

2.5.1 Survey Methods

The Bat Conservation Trust (BCT) good practice guidelines (Collins (ed), 2016) state that the minimum temperature at sunset for surveys to be undertaken is 10°C. The survey visits in April were conducted over a three-week period, and the temperature at sunset was below this minimum threshold for all transects. The temperatures throughout the month of April were considered to be low, and therefore it was considered more beneficial to the overall survey effort to collect data in sub-optimal conditions than to not collect data at all. The other weather parameters including precipitation and wind speed were favourable for all April survey visits.

The number of recorded echolocation calls is not equivalent to the number of bats, as one individual bat may pass by a static detector or surveyor multiple times whilst foraging. The recorded calls along the transects and by the static monitoring devices can give an indication of the activity levels attributed with a particular feature, and highlights which features are used by less common species of bats.

2.5.2 Access

Transect T7 underwent a route change between the April and May survey visits, as it was found not to be possible to cross a railway line. This route change is presented in Appendix D.

A short section of Transect T1 was not completed from June onwards due to dense overgrown vegetation which was impassable. On a number of occasions, a short diversion was made on Transect T9 to avoid a field containing several horses. The diversion skirted the edge of the field rather than passing through it.

Transect T2 and Transect T3 were subject to access restrictions from the landowners for the September and October survey visits. The transect routes were diverted to avoid restricted land and made attempt to survey as much of the original route as possible. These route changes are presented in Appendix D.

All other surveys occurred with no access restrictions.

2.5.3 Equipment and Data Analysis

Peak Ecology Ltd purchased new bat detectors in order to undertake all the surveys ensuring that the methodology used the same, most up-to-date equipment and analysis software. Unfortunately, some unexpected technical faults were experienced with the detectors during the 2023 survey season such as malfunctioning GPS connections leading to data on transects not being attributed to the correct geographical point, or faulty battery connections leading to detectors recording intermittently. A summary of these faults is presented in **Table 3**. All faults were reported to Titley Scientific, the manufacturers of the detectors and analysis software, and devices sent to them for investigations or repair.

During the transect surveys, surveyors were equipped with a hand-held heterodyne bat detector and recorded bats seen and heard on paper survey maps, which acted as a suitable

back-up in case of any fault with the recording device or the GPS tagging of calls. Where static detectors were found to have malfunctioned, these were redeployed where possible.

Table 3: Summary of bat detector technical faults experienced during the 2023 bat surveys for Dogger Bank South Offshore Wind Farms

Transect Location	Static Detector Faults	Transect Detector Faults	
		Recordings	GPS
T1	May – recordings failed; detector redeployed in early June	May – device intermittent failure	None
T2	April - recordings failed, detector fault.	August – GPS failure	None
T3	None	None	None
T4	None	June – Recordings failed part-way through survey August – microphone intermittent failure	None
T5	May – device error for 2/5 nights recording	None	May – GPS not established, device error
T6	None	None	April – GPS not established, device error
T7	None	None	April – GPS not established, device error
T8	None	None	None
T9	April – device failure 1/5 nights June – device failure 1/5 nights	None	None
T10	None	None	August – GPS not established, device error

2.5.4 *Lifespan of Data*

The results and recommendations contained within this report are considered to be valid for up to two years from the date of survey, assuming that there are no significant changes to the site condition or management within this period. After this period, or should the site conditions change, an update may be required in order to inform ecological constraints to development proposals and/or accompany a planning submission.

3 **RESULTS**

3.1 **Desk Study**

3.1.1 **Designated Sites**

There are statutory and non-statutory designated wildlife sites within 2km of the survey area, (Table 4). Statutory sites include Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA). None of the sites were specifically designated for bats.

Full details for all designated wildlife sites including reasons for designation and location are included in the Desk Study Report (Peak Ecology, 2022a).

Table 4: Summary of Designated Sites within a 2km buffer of the Dogger Bank South Offshore Wind Farms

Designated Site	Designation	Within ?
Statutory Sites		
Greater Wash	SPA	Y
Burton Bushes	SSSI	N
Leven Canal	SSSI	N
Pulfin Bog	SSSI	N
Skipsea Bail Mere	SSSI	N
Withow Gap, Skipsea	SSSI	N
Beverley Parks	LNR	N
Non-statutory Sites		
Beeford - Dunnington Road Verge	LWS	Y
Bentley Moor Wood	LWS	Y
Nunkeeling Lane	LWS	Y
Raventhorpe Embankment	LWS	Y

3.1.2 **Bat Species**

Table 5 below provides a summary of the bat records provided by the client that are considered relevant to this report. Records are included from within a 2km buffer of the Onshore Study Area. An overview map of these records is available in Appendix E.

Table 5: Summary of bat species records within a 2km buffer of the Dogger Bank South Offshore Wind Farms

Species	Common name	Total Number of Records	Years
<u>General Records (from the last 15 years)</u>			
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	24	2008 - 2016
<i>Plecotus auritus</i>	Brown long-eared bat	2	2014
<i>Myotis daubentonii</i>	Daubenton's bat	2	2016
<i>Pipistrellus nathusii</i>	Nathusius's Pipistrelle	1	2010
<i>Nyctalus noctula</i>	Noctule	1	2015

Species	Common name	Total Number of Records	Years
<i>Pipistrellus sp</i>	Pipistrelle	2	2008 - 2015
<i>Myotis mystacinus</i>	Whiskered Bat	4	2010 - 2013
<i>Vespertilio murinus</i>	Parti-coloured Bat	2	2010
<i>Chiroptera sp</i>	Bat	1	2014
<u>Roost Records (whole data set)</u>			
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	7	2001 - 2015
<i>Plecotus auritus</i>	Brown long-eared bat	2	1991 - 2008
<i>Nyctalus noctula</i>	Noctule	5	1982 - 1988
<i>Pipistrellus sp</i>	Pipistrelle	31	1983 - 2008
<i>Myotis mystacinus</i>	Whiskered Bat	2	1984 - 1985
<i>Chiroptera sp</i>	Bat	26	1984 - 2004

3.1.3 **European Protected Species Licence Returns**

Table 6 below provides a summary of European Protected Species (EPS) licence returns for bat species, obtained from the MAGIC online database.

Table 6: European Protected Species licence returns

EPS Licence	Species Impacted	Dates	Grid Reference	Closest Transects
2018-35273-EPS-MIT	Common pipistrelle	2018	TA14815500	T1
2018-34003-EPS-MIT	Common pipistrelle, Natterer's	2018 - 2023	TA12085009	T2
EPSM2013-6091	Common pipistrelle, Brown long-eared	2013 - 2014	TA10314741	T2, T3
EPSM2012-4827	Common pipistrelle	2013 - 2014	TA12824524	T3
EPSM2010-1854	Common pipistrelle	2010 - 2012	TA10303897	T4
2015-10336-EPS-MIT	Common pipistrelle, Brown long-eared	2015 - 2020	TA06604039	T4
EPSM2012-4384	Common pipistrelle, Brown long-eared, Natterer's	2012 - 2014	SE98883998	T8
2014-4452-EPS-MIT	Common pipistrelle, Soprano pipistrelle	2014 - 2019	TA02693949	T8
2018-37471-EPS-MIT	Common pipistrelle	2018 - 2019	SE99663707	T8, T9

EPS Licence	Species Impacted	Dates	Grid Reference	Closest Transects
2015-17132-EPS-MIT	Common pipistrelle	2016 - 2021	TA04713249	T10

3.2 Bat Transect and Static Surveys

This section summarises recorded bat echolocation calls during the 2023 survey season. This is an interim report and therefore only includes data up to August 2023. Where data is unavailable, this has been clearly displayed.

Table 7: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms for all Transects

Species	April	May	June (Dusk)	June (Dawn)	July (Dusk)	July (Dawn)	Aug	Sept	Oct	Total
Common pipistrelle <i>Pipistrellus pipistellus</i>	182	464	412	219	318	116	370	525	184	2790
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	19	64	54	59	9	1	59	35	133	433
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>	0	1	0	0	0	0	0	2	0	3
<i>Pipistrellus</i> sp.	3	15	7	3	0	0	1	0	0	29
Noctule <i>Nyctalus noctula</i>	0	80	32	30	6	2	67	154	35	406
Leisler's <i>Nyctalus leisleri</i>	0	1	0	0	0	0	1	0	0	2
Daubenton's <i>Myotis daubentonii</i>	0	28	5	1	15	0	19	25	11	104

Species	April	May	June (Dusk)	June (Dawn)	July (Dusk)	July (Dawn)	Aug	Sept	Oct	Total
Whiskered / Brandt's <i>Myotis mystacinus</i> / <i>Myotis brandtii</i>	0	4	4	10	0	0	3	3	2	26
<i>Myotis</i> sp.	1	1	9	9	3	0	5	7	0	35
Total	205	657	523	187	348	119	525	749	365	3828

3.2.1 **Bat Transect Surveys**

Maps of surveyor observations per transect per survey visit are presented in Appendix F. Where bats were seen by surveyors, details of their flight path was recorded and presented on the maps. Where bats were heard on hand-held heterodyne detectors, but were not observed by surveyors, these were recorded as 'Heard Not Seen' and presented as point data on the maps. Species labels were added to each observation using GPS linked recorded echolocation calls. Where GPS data was unavailable, the surveyor notes about timings of observations was used to determine which recorded calls, and therefore which species, were attributed to these observations.

Transect 1

Detector Recordings

During the transect, four species of bats were identified to species level, and a further two identified to genus level along the route across the survey season. The highest number of calls were attributed to common pipistrelle across all survey visits, with a peak 32 calls recorded in June. May had the greatest number of individual species recorded (common pipistrelle, Nathusius' pipistrelle, Whiskered/Brandt's bat and a *Pipistrellus* species. Activity levels were consistent between June – August (**Table 8**).

Surveyor Observations

Bat numbers recorded along Transect T1 were relatively low across the survey period compared with other transects. No bats were seen or heard during the April and October transect survey visits. The majority of bats observed by surveyors were common pipistrelle. Foraging was recorded most frequently along Stream Dike. Commuting passes were recorded occasionally along Hornsea Road and along arable hedgerows. Bat activity was recorded on every survey visit when surveyors passed through the village of Skipsea, suggesting the likely presence of at least one bat roost in the area. Surveyors also recorded several common pipistrelle bats commuting towards the coast along a road leading west out of Skipsea, with at least 11 individuals observed approximately 30 minutes after sunset in July, also indicating likely presence of a common pipistrelle roost in one of the houses on Hornsea Road (approximate location TA 17381 55128).

Table 8: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Transect 1

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	1	4	26	32	22	19	21	0	125
Soprano pipistrelle	0	0	0	0	1	0	0	0	1
Nathusius' pipistrelle	0	1	0	0	0	0	0	0	1
<i>Pipistrellus</i> sp.	0	1	0	0	0	1	0	0	2
Noctule	0	0	0	0	0	1	0	0	1
Whiskered/ Brandt's	0	2	0	0	0	0	0	0	2
Total	1	8	26	32	23	21	21	0	132

Transect 2

Detector Recordings

Along the transect, three species of bats were recorded to species level, and a further three to genus level across the survey season. Common pipistrelle was the most recorded species (max count of 28 calls in June). June recorded the largest total number of calls from all species (83), which was much higher than the rest of the surveys which all recorded less than 10 total calls per survey (**Table 9**).

Surveyor Observations

Bat activity was generally recorded along the whole length of the route of this transect albeit, in low levels compared with other transects across the survey season. Foraging was recorded around Nunkeeling Priory on almost all survey visits. The route followed arable hedgerows which supported both commuting and foraging bats. Those of particular interest were the ones containing mature standard trees around Moor House Farm. Activity was the highest during the June survey visit.

Table 9: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 2

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	4	0	28	3	7	4	13	25	84
Soprano pipistrelle	4	0	45	1	1	1	9	17	78
<i>Pipistrellus</i> sp.	0	0	2	1	0	0	0	0	3
Daubenton's	0	0	0	0	1	0	0	0	1

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
<i>Myotis</i> sp.	0	1	4	0	0	1	0	0	6
Whiskered/Brandt's	0	0	4	2	0	0	2	1	9
Total	8	1	83	7	9	6	24	43	181

Transect 3

Detector Recordings

Along the transect, five species of bats were identified to species level and a further two to genus level along across the survey season. Common pipistrelle was the most commonly recorded species, with a maximum count of 82 in May. The highest number of calls was also recorded in May (156) (Table 10).

Surveyor Observations

Bat activity was recorded across the entire length of the route of Transect T3. The most recorded species were common and soprano pipistrelle bats. Both species were observed commuting along Catwick Heads Road; foraging around a small woodland copse adjoining Catfoss Drain, around mature trees nearby to Hornsea Garden Centre and along arable hedgerows at the southern edge of the route. Occasional individual bats were recorded elsewhere on the route, foraging or commuting along arable hedgerows.

Table 10: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 3

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	3	82	14	20	40	33	34	19	245
Soprano pipistrelle	2	54	2	6	3	26	17	67	177
<i>Pipistrellus</i> sp.	1	3	2	2	0	0	0	0	8
Noctule	0	3	1	1	0	1	4	11	21
Leisler's	0	1	0	0	0	1	0	0	2
Daubenton's	0	13	2	1	8	1	3	8	36
<i>Myotis</i> sp.	0	0	1	2	0	3	1	0	7
Total	6	156	22	32	51	65	59	105	496

Transect 4

Detector Recordings

Along the transect, four species of bats were identified to species level, and two to genus level (*Myotis* sp.) across the survey season. Almost all calls recorded across the survey effort were attributed to common pipistrelle, with a maximum count of 21 recorded in both May and July. Activity levels were consistent throughout the survey period and were notably low compared with other transects (**Table 11**).

Surveyor Observations

The majority of features utilised by bats along the route of Transect T4 were arable boundary hedgerows, some containing occasional mature standard trees, and narrow country lanes which were typically lined by hedgerows. Meaux Lane, and the farmyard close by, was particularly frequented by foraging bats, with common pipistrelles observed or heard there on all survey visits. Commuting bats were also recorded along Monks Dike, a long and very straight ditch between arable fields on several occasions.

Table 11: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 4

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct*	Total
Common pipistrelle	5	21	17	5	21	15	14		98
Soprano pipistrelle	2	1	0	0	0	2	0		5
Noctule	0	0	1	1	1	1	1		5
Daubenton's	0	0	0	0	1	0	0		1
<i>Myotis</i> sp.	1	0	0	0	0	0	0		1
Whiskered/Bra ndt's	0	0	0	0	0	0	1		1
Total	8	22	18	6	23	18	16		111

*Transect T4 was not completed in October due to access restrictions.

In October a nocturnal survey of Transect T4 was not undertaken, as access was severely restricted following an outbreak of avian flu meaning that the majority of the route was not able to be walked. To compensate for this, a static monitoring device was positioned at a different location along the transect route within the Bat Survey Area boundary to capture information about bat activity in this area in October. The results of this five-day monitoring period are presented below (**Table 12**).

Table 12: Summary of the results of additional static monitoring for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect T4

Date	Weather Conditions	Recordings	
		Species	Number of calls
16/10/2023	Temperature: 9°C Rainfall: 0 Wind: BF 2 Humidity: 76%	None	0
17/10/2023	Temperature: 12°C Rainfall: 0 Wind: BF 4 Humidity: 72%	Soprano pipistrelle	2
18/10/2023	Temperature: 14°C Rainfall: 1 Wind: BF 5 Humidity: 82%	None	0
19/10/2023	Temperature: 16°C Rainfall: 0 Wind: BF 3 Humidity: 88%	Common pipistrelle	17
20/10/2023	Temperature: 11°C Rainfall: 3 Wind: BF 4 Humidity: 94%	Noctule	1

Transect 5

Detector Recordings

Along the transect, four species of bats were identified to species level and two to genus level across the survey season. The most recorded species was common pipistrelle, with a maximum count of 66 recorded in June. The number of recordings in July - October were notably lower (**Table 13**).

Surveyor Observations

Bat activity was low across Transect T5, and bats were mainly recorded at a few locations. Holderness Drain on the western edge of the route provided the most frequent observations of bats, with bats recorded foraging and commuting along the hedgerow-lined drain on all survey visits. Surveyors observed at least two individual common pipistrelles foraging in and around the grain stores of Hall Farm, Routh, despite the farmyard being well-lit with floodlights permanently. Very occasionally, individuals were recorded elsewhere on the transect route, commuting via field boundary hedgerows.

Table 13: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 5

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	56	9	32	66	5	5	6	1	180
Soprano pipistrelle	0	0	2	50	1	1	1	0	55
Noctule	0	0	15	15	0	2	5	1	38
Daubenton's	0	11	0	0	1	1	0	0	13
<i>Myotis</i> sp.	0	0	4	7	0	0	1	0	12
Whiskered/Brandt's	0	0	0	6	0	1	0	0	7
Total	56	20	53	144	7	10	13	2	305

Transect 6

Detector Recordings

Along the transect, five species of bats were identified to species level and three to genus level across the survey season. The most recorded species was common pipistrelle, with a maximum count of 136 recorded in August. Transect 6 recorded the highest maximum count for Daubenton's bat (21 in September) of all the transect routes (**Table 14**).

Surveyor Observations

Transect T6 recorded the highest number of species of bat of all the transect routes surveyed. Foraging and commuting activity was recorded almost constantly along the transect by numerous bats, with common pipistrelle and Daubenton's bats the most frequently observed, especially along the River Hull. Bat activity was also regularly recorded around the hedgerows associated with Turf Gutter and along Eske Lane. Surveyors noted foraging bats around the large plant nursery on Eske Lane, which is likely to provide a good foraging resource.

Table 14: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 6

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	73	12	35	15	34	136	70	61	436
Soprano pipistrelle	10	5	2	0	1	20	7	0	45
Nathusius' pipistrelle	0	0	0	0	0	0	2	0	2
<i>Pipistrellus</i> sp.	1	4	0	0	0	0	0	0	5
Noctule	0	0	3	3	0	5	18	21	50
Daubenton's	0	0	2	0	3	15	21	3	44
<i>Myotis</i> sp.	0	0	0	0	3	0	0	0	3
Whiskered/Brandt's	0	1	0	0	0	0	0	0	1
Total	84	22	42	18	41	176	118	85	586

Transect 7

Detector Recordings

Transect 7 recorded the highest total number of bat calls of all the transect routes surveyed. Along the transect a maximum of three species of bats were identified to species level and three to genus level across the survey season. The majority of calls recorded across the survey season were attributed to common pipistrelle, with a maximum count of 204 recorded in September. Activity levels were consistent throughout the survey period, with common pipistrelle and noctule recorded on most survey visits (**Table 15**). The peak number of total calls were recorded in September (252 calls).

Surveyor Observations

The most prominent feature along the route is a long stretch of greenway, a popular public footpath, which provided a tree lined dark corridor for bats. Commuting and foraging activity was recorded along this pathway on all survey visits, with a maximum count of five individuals observed simultaneously. Activity along the remainder of the route was much less frequent and was associated with individual bats commuting or foraging along field boundary hedgerows.

Table 15: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 7

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	34	107	81	43	33	35	204	24	561
Soprano pipistrelle	1	0	0	0	0	1	0	20	22
<i>Pipistrellus</i> sp.	0	5	0	0	0	0	0	0	5
Noctule	0	12	5	5	2	0	46	0	70
<i>Myotis</i> sp.	0	0	0	0	0	0	2	0	2
Whiskered/Brandt's	0	0	0	2	0	0	0	0	2
Total	35	124	86	50	35	36	252	44	662

Transect 8

Detector Recordings

Along the transect four species of bat were identified to species level and one to genus level (*Pipistrellus* sp.) across the survey season. Almost all recorded calls were attributed to pipistrelle species. Activity levels were consistent across the survey visits, apart from in April where only four calls were recorded and a peak of 101 calls recorded in September (**Table 16**).

Surveyor Observations

Bats were observed or heard foraging around the woodland at the middle of the route during all survey visits and is likely an excellent foraging resource based on the levels of bat activity

encountered and the habitat condition. The hedgerows which provided linear features connecting this woodland to the surrounding fields were also used for frequent foraging and commuting. Individual pipistrelle bats were observed towards the eastern end of the route, but much less frequently.

Table 16: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 8

Species	April	May	June (Dusk)	June (Dawn)	July	Aug	Sept	Oct	Total
Common pipistrelle	3	46	52	32	30	72	53	0	288
Soprano pipistrelle	0	2	1	2	2	3	1	16	27
<i>Pipistrellus</i> sp.	1	0	0	0	0	0	0	0	1
Noctule	0	2	5	5	2	0	46	0	60
Daubenton's	0	0	0	0	0	0	1	0	1
Total	4	50	58	39	34	75	101	16	377

Transect 9

Detector Recordings

Along the transect, a maximum of three species of bats were identified to species level and three to genus level across the survey season. The majority of calls recorded across the survey effort were attributed to common pipistrelle, with a maximum count of 80 calls recorded in July. Activity levels were consistent throughout the survey period, not including April which recorded only one bat call (**Table 17**).

Surveyor Observations

The majority of bats observed by surveyors along Transect T9 were common pipistrelle. Surveyors frequently observed bats commuting over road bridges which crossed the A1079 and A164. Regular foraging was noted around, and along hedgerows between, woodland copses on the route. The northern half of the transect recorded much lower levels of activity with only occasional commuting bats.

Table 17: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 9

Species	April	May	June	July (Dusk)	July (Dawn)	Aug	Sept	Oct	Total
Common pipistrelle	1	78	64	80	68	24	56	13	384
<i>Pipistrellus</i> sp.	0	0	3	0	0	0	0	1	4
Noctule	0	3	1	0	1	0	19	2	26
Daubenton's	0	0	0	1	0	0	0	0	1
<i>Myotis</i> sp.	0	0	0	0	0	0	1	0	1
Whiskered/Brandt's	0	1	0	0	0	0	0	1	2
Total	1	82	68	81	69	24	76	17	418

Transect 10

Detector Recordings

Along the transect, four species of bat were identified to species level and three to genus level across the survey season. The most commonly recorded species were common pipistrelle and noctule, with maximum counts of 105 and 60 calls respectively. The survey visit in May recorded the highest number of calls (173), and activity levels were reasonably consistent through the surveys (**Table 18**).

Surveyor Observations

Bat activity was relatively high along Transect T10, with the majority of sightings attributed to common pipistrelle. No bats were recorded by surveyors along the western end of Transect T10. The woodland copses recorded the highest levels of foraging activity, with at least eight individuals observed around the woodland south of Park Lane during the dusk survey in June, whilst the arable field boundary hedgerows were utilised regularly for foraging and commuting. Surveyors frequently observed bats commuting over a road bridge over the A1079. Bat activity around Beverley Parks Nature Reserve was notably lower than other areas of the route.

Table 18: Summary of results of the 2023 bat transect surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Transect 10

Species	April	May	June	July (Dusk)	July (Dawn)	Aug	Sept	Oct	Total
Common pipistrelle	2	105	63	46	48	27	54	41	386
Soprano pipistrelle	0	2	2	0	1	5	0	12	22
<i>Pipistrellus</i> sp.	0	2	0	0	0	0	0	0	2
Noctule	0	60	1	1	1	57	5	0	125
Daubenton's	0	4	1	0	0	2	0	0	7
<i>Myotis</i> sp.	0	0	0	0	0	1	2	0	3
Whiskered/Brandt's	0	0	0	0	0	2	0	0	2
Total	2	173	67	47	50	94	61	53	547

3.2.2 Bat Static Monitoring Surveys

The surveys were undertaken between April and October 2023 inclusive. Details of static monitoring periods can be seen in **Table 19**. Where recording errors occurred, these have been clearly presented in the table.

Table 19: Static monitoring periods for 2023 survey season of Dogger Bank South Offshore Wind Farms Bat Survey Area between April and October 2023

Month	Static Monitoring period	Exceptions
April	19/04/2023 – 23/04/2023	T2 – all recordings failed, detector fault. T9 – no recordings 23/04/23

Month	Static Monitoring period	Exceptions
May	17/05/2023 – 21/05/2023	T1 – detector failure in May, redeployed from 02/06/23 to 06/06/23
June	22/06/2023 – 26/06/2023	T9 – no recordings on 24/06/23
July	06/07/2023 – 10/07/2023	T8 – no recordings on 08/07/2023
August	10/08/2023 – 14/08/2023	T6 – no recordings on 12/08/2023, 13/08/2023 and 14/08/2023
September	07/09/2023 – 11/09/2023	T10 – no recordings T8 – recordings used 06/09/2023 – 09/09/2023
October	04/10/2023 – 08/10/2023	None

Ten static detectors were deployed during the survey period from April to October inclusive, one per transect at designated locations. Species recorded included common pipistrelle, soprano pipistrelle, Nathusius’ pipistrelle, brown long-eared bat, Noctule, Leisler’s bat Daubenton’s bat, Natterer’s bat, Whiskered/Brandt’s bat and at least one undetermined *Myotis* species. The total number of species identified per transect across the 2023 survey season are presented in **Table 20**.

Table 20: Total number of bat species recorded per transect by bat static monitors along the Dogger Bank South Offshore Wind Farms Bat Survey Area between April and October 2023

Static location	Total number of species identified to species level	Total number of species identified to genus level
Static Location T1	8	2
Static Location T2	6	2
Static Location T3	5	2
Static Location T4	6	3
Static Location T5	8	3
Static Location T6	7	3
Static Location T7	4	2
Static Location T8	8	3
Static Location T9	7	2
Static Location T10	6	2

The following sections detail the results of static monitoring device recording. The total bat calls per species per monitoring period for each static location are presented in Appendix G and H.

Static Location T1

A static detector was deployed on a mature hawthorn tree along the edge of Stream Dike, Skipsea. The surrounding habitat comprised mostly of arable land.

Eight species were identified to species level and two to genus level at Static Location T1 across the survey season, with the most common recorded species being common pipistrelle which accounted for 41% of calls during all of the survey periods. The next most commonly recorded species was Whiskered/Brandt's bat which accounted for 28% of recorded calls. Approximately 7% of calls were attributed Daubenton's bat, a species associated with foraging near/over water.

A detector failure in May resulted in a lack of recordings, however a detector was redeployed in early June. The data in the table for May reflects the data collected in June following this redeployment (**Table 21**).

Table 21: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 1

Species	April	May*	June	July	Aug	Sept	Oct	Total
Common	118	992	380	300	196	113	61	2160
Soprano	9	87	40	21	38	41	4	240
Nathusius'	0	0	1	0	0	0	0	1
Brown long-	0	0	7	1	3	1	1	13
Noctule	0	0	0	2	10	0	0	12
Leisler's	0	0	0	0	0	1	0	1
Daubenton's	6	166	11	8	110	12	29	342
Natterer's	0	0	6	33	5	1	0	45
<i>Myotis</i> sp.	25	845	34	7	37	16	11	975
Whiskered/Bran	4	550	345	114	107	244	119	1483
Number of nights of data collected	5	5	5	5	5	5	5	35
Total bat calls per static period	162	2640	824	486	506	429	225	5272
Average number of bat calls per night	32	528	165	97	101	86	45	151

*Data recorded in June, as May recordings failed and static detector was redeployed.

Static Location T2

A static detector was deployed each month on a mature hedgerow adjacent to the ruins of Nunkeeling Priory. The surrounding habitats were mostly arable land and pasture.

Six species were identified to species level and two to genus level at Static Location T2 across the survey season, including common pipistrelle, soprano pipistrelle, brown long-eared bat, noctule, Daubenton's bat, Natterers' bat and at least one unidentified *Myotis* species. The highest number of recordings were from common pipistrelles (74% of total calls), with the highest number of calls recorded in July (**Table 22**).

A device error resulted in a lack of recordings for April. However, it is considered that the vast number of calls recorded across the previous months, and the consistent average number of calls and species distribution provide adequate information for evaluation.

Table 22: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 2

Species	April	May	June	July	Aug	Sept	Oct	Total
Common		34	178	182	121	116	317	948
Soprano		0	6	2	32	8	20	68
Brown long-		0	0	1	0	1	1	3
Noctule		1	0	1	6	14	1	23
Daubenton's		2	8	5	0	5	0	20
Natterer's		0	1	0	4	0	0	5
<i>Myotis</i> sp.		1	3	8	93	15	4	124
Whiskered/Bran		4	2	4	20	41	22	93
Number of nights of data collected		5	5	5	5	5	5	30
Total bat calls per static period		42	198	203	276	200	365	1284
Average number of bat calls per night		8	40	41	55	40	73	43

Static Location T3

A static detector was installed on a large mature oak tree on the edge of a small woodland copse adjacent to a small tree-lined lane and perpendicular to Catfoss Drain, Sigglesborne. The surrounding land use was predominately arable.

Five species were identified to species level and two to genus level at Static Location T3 across the survey season. The majority of calls were identified as common and soprano pipistrelle, with 555 (33%) and 784 (47%) total calls recorded respectively. Noctules and whiskered/Brandt's bats were also present in reasonable numbers, with approximately 7% of total calls attributed to each species. The highest number of bat calls was recorded in September (**Table 23**).

Table 23: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 3

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	12	157	116	42	42	87	99	555
Soprano	27	162	22	47	39	361	126	784
Nathusius'	0	0	0	0	0	0	1	1
Noctule	0	11	6	7	78	8	13	123
Daubenton's	0	5	8	0	2	16	17	48
<i>Myotis</i> sp.	0	9	0	1	4	4	10	28

Species	April	May	June	July	Aug	Sept	Oct	Total
Whiskered/Bran	0	0	0	4	7	8	104	123
Number of nights of data collected	5	5	5	5	5	5	5	35
Total bat calls per static period	39	344	152	101	172	484	370	1662
Average number of bat calls per night	8	69	30	20	34	97	74	47

Static Location T4

A static detector was installed on a hawthorn hedgerow with standard trees bordering an arable field off Meaux Lane, Routh. The surrounding land use was predominately arable.

Six species were identified to species level and three to genus level at Static Location T4 across the survey season. The majority of calls were identified as common pipistrelle, with 1588 (59%) total calls recorded across the monitoring period. The next most commonly recorded species was soprano pipistrelle, accounting for 26% of total calls. The highest number of average bat calls was recorded in October (**Table 24**).

Due to access restrictions at the original location, the static detector was moved a short distance and deployed on the opposite side of the same hedgerow approximately 50m east.

Table 24: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 4

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	44	146	224	43	117	85	929	1588
Soprano	7	33	35	3	39	53	527	697
Nathusius'	0	1	0	0	0	3	0	4
<i>Pipistrellus</i> sp.	1	0	0	0	0	0	0	1
Brown long-	0	0	0	0	0	0	2	2
Noctule	0	0	53	2	7	1	9	72
Daubenton's	1	5	3	0	7	1	52	69
<i>Myotis</i> sp.	0	6	1	1	4	0	104	116
Whiskered/Bran	0	0	0	0	0	3	139	142
Number of nights of data collected	5	5	5	5	5	5	5	35
Total bat calls per static period	53	191	316	49	174	146	1767	2691
Average number of bat calls per night	11	38	63	10	35	29	353	77

Static Location T5

A static detector was installed on a hawthorn hedgerow adjacent to Holderness Drain, near Tickton. The surrounding land use was predominately arable with scattered small woodland copses.

Eight species were identified to species level and three to genus level at Static Location T5 across the survey season. Common pipistrelle calls accounted for 69% of the total recorded calls across the monitoring period. The highest number of average bat calls was recorded in October (**Table 25**).

Table 25: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 5

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	190	34	74	42	288	177	881	1686
Soprano	6	0	1	3	31	20	214	275
Nathusius'	0	0	0	0	0	0	11	11
<i>Pipistrellus</i> sp	0	0	0	0	0	0	27	27
Brown long-	0	0	0	0	1	0	1	2
Noctule	2	1	2	12	8	13	0	38
Leisler's	0	0	0	0	0	0	1	1
Daubenton's	8	2	11	6	30	7	52	116
Natterer's	0	0	0	0	3	0	0	3
<i>Myotis</i> sp.	0	1	1	9	38	1	80	130
Whiskered/Bran	0	0	0	0	0	24	116	140
Number of nights of data collected	5	5	5	5	5	5	5	35
Total bat calls per static period	206	38	89	72	399	242	1383	2429
Average number of bat calls per night	41	8	18	14	80	48	277	69

Static Location T6

A static detector was installed each month on a mature hawthorn tree along the edge of the River Hull, north of Hull Bridge. The surrounding land use was predominately arable with scattered small woodland copses.

Seven species were identified to species level and three to genus level at Static Location T6 across the survey season. The number of calls recorded by this detector was significantly higher than for all other static locations. The highest number of average bat calls per night were recorded in May, with 883 bat calls per night. The most commonly recorded bats were common pipistrelle and Daubenton's bat, with 10706 (64%) and 4209 (25%) total calls recorded across the survey season at this location (**Table 26**).

A device error resulted in only two nights of recordings for August. However, it is considered that the vast number of calls recorded across the previous months, and the consistent average number of calls and species distribution provide adequate information for evaluation.

Table 26: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 6

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	1471	3132	1545	2169	881	1433	75	10706
Soprano	168	37	52	405	92	132	2	888
Nathusius'	4	0	0	0	70	40	1	115
<i>Pipistrelle</i> sp.	0	0	0	0	0	67	0	67
Brown long-	0	0	0	0	0	1	0	1
Noctule	5	10	18	25	1	22	0	81
Leisler's	0	0	0	0	0	0	0	0
Daubenton's	1642	1101	10	644	10	800	2	4209
<i>Myotis</i> sp.	76	136	30	119	1	203	0	565
Whiskered/Brandt	4	0	0	0	3	38	5	50
Number of nights of data collected	5	5	5	5	2	5	5	32
Total bat calls per static period	3370	4416	1655	3362	1058	2736	85	16682
Average number of bat calls per night	674	883	331	672	529	547	17	521

Static Location T7

A static detector was installed each month on a mature hawthorn tree within a line of trees along a footpath. The footpath was a former railway line and was lined with trees and scrub on both sides. The surrounding land use was arable, with the village of Molescroft just south of the static location.

Four species were identified to species level and two to genus level at Static Location T7 across the survey season. This location recorded the fewest number of different bat species, with six recorded in total including common pipistrelle, soprano pipistrelle, noctule, Daubenton's, whiskered/Brandt's bat and at least one *Myotis* species. The highest number of average bat calls per night were recorded in May, with 164 bat calls per night. Almost all calls recorded were identified as common pipistrelle (93%), which was the only species recorded during the April monitoring period (Table 27).

Table 27: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 7

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	249	803	237	630	182	23	69	2193
Soprano	0	2	0	2	0	0	1	5

Species	April	May	June	July	Aug	Sept	Oct	Total
Noctule	0	1	15	37	0	62	0	115
Daubenton's	0	0	12	3	0	0	0	15
<i>Myotis</i> sp.	0	8	2	9	0	1	3	23
Whiskered/Bran	0	5	0	0	3	2	5	15
Number of nights of data collected	5	5	5	5	5	5	5	35
Total bat calls per static period	249	819	266	681	185	88	78	2366
Average number of bat calls per night	50	164	53	136	37	18	16	68

Static Location T8

A static detector was installed each month on a semi-mature ash tree within a thin strip of woodland bordering an arable field, and adjacent to Beverly Westwood common land; an area used for grazing cattle and as a golf course.

Eight species were identified to species level and three to genus level at Static Location T8 across the survey season which included common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, brown long-eared bat, noctule, Leisler's bat, Daubenton's bat, Natterer's bat, Whiskered/Brandt's bat and a small number of calls identified to genus level as *Myotis* and *Pipistrellus*.

The most commonly recorded species was common pipistrelle, which accounted for 68% of the total recorded calls. The next most commonly recorded species was noctule, with 1529 (23%) calls recorded across the monitoring period. The highest number of average bat calls was recorded in October (**Table 28**).

Table 28: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 8

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	6	746	233	194	484	253	2590	4506
Soprano	2	133	94	24	34	22	113	422
Nathusius'	0	0	0	0	0	0	3	3
<i>Pipistrellus</i> sp	0	0	0	0	0	0	24	24
Brown long-	0	0	3	0	4	0	0	7
Noctule	2	53	318	65	880	162	49	1529
Leisler's	0	0	0	0	0	0	11	11
Daubenton's	0	3	7	3	3	5	4	25
Natterer's	2	0	0	0	2	0	0	4
<i>Myotis</i> sp.	0	6	5	1	9	1	16	38
Whiskered/Bran	0	1	1	0	6	6	20	34

Species	April	May	June	July	Aug	Sept	Oct	Total
Number of nights of data collected	5	5	5	5	5	4	5	34
Total bat calls per static period	12	942	661	287	1422	449	2830	6603
Average number of bat calls per night	2	188	132	57	284	112	566	194

Static Location T9

A static detector was installed each month on a mature tree within a thin strip of woodland dividing arable fields, south west of Beverley. The surrounding land use was arable, with the A1079 dual carriageway running just north of the static location. A larger woodland copse lay just south of the static location.

Seven species were identified to species level and two to genus level at Static Location T9 across the survey season. The number of calls recorded was much higher in April and May, with a fall in total recorded calls for all subsequent monitoring periods. The most commonly recorded species was common pipistrelle which accounted for 91% of total recorded calls across the survey season. The highest number of average bat calls was recorded in May (**Table 29**).

As a result of a device error, one day of recording for both April and June were unsuccessful, and therefore only four days of data are available for these monitoring periods.

Table 29: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 9

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	190	553	5	41	17	151	90	1047
Soprano	6	4	0	0	2	3	1	16
Nathusius'	0	0	0	0	0	1	0	1
Brown long-	0	0	0	0	1	0	0	1
Noctule	2	2	1	2	16	11	4	38
Daubenton's	8	0	0	0	0	1	0	9
Natterer's	0	1	0	0	0	0	0	1
<i>Myotis</i> sp.	0	1	1	3	0	0	1	6
Whiskered/Bran	0	0	1	0	4	14	10	29
Number of nights of data collected	4	5	4	5	5	5	5	33
Total bat calls per static period	206	561	8	46	40	181	106	1148
Average number of bat calls per night	52	112	2	9	8	36	21	35

Static Location T10

A static detector was installed each month on a semi-mature tree within an arable border hedgerow south of Beverley. The surrounding land use was generally arable.

Six species were identified to species level and two to genus level at Static Location T10 across the survey season. The highest number of average bat calls was recorded in June. Only two bat calls were recorded across the entire April monitoring period, which was notably low. Common pipistrelle was the most commonly recorded species, with 97% of all calls recorded being identified as common pipistrelle (**Table 30**).

A device error resulted in a lack of recordings for September. However, it is considered that the vast number of calls recorded across the previous months, and the consistent average number of calls and species distribution provide adequate information for evaluation.

Table 30: Summary of results of the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area Static Location Transect 10

Species	April	May	June	July	Aug	Sept	Oct	Total
Common	2	141	793	644	153		66	1799
Soprano	0	0	0	0	2		0	2
Brown long-	0	0	1	0	1		0	2
Noctule	0	9	4	4	3		4	24
Daubenton's	0	3	6	3	5		1	18
Natterer's	0	0	1	0	0		0	1
<i>Myotis</i> sp.	0	1	1	6	3		0	11
Whiskered/Bran	0	0	0	0	3		2	5
Number of nights of data collected	5	5	5	5	5		5	30
Total bat calls per static period	2	154	806	657	170		73	1862
Average number of bat calls per night	0.4	31	161	131	34		15	62

Results Overview

Features used regularly by bats for foraging and commuting were largely the same across all transects, with dark linear features such as boundary hedgerows, lines of trees, field drains and woodland edges recording far more activity than the interiors of arable and pasture fields. Particular features of interest which recorded the highest levels of activity, were seen to be used on at least three survey visits or were utilised by multiple bats or a range of species simultaneously are presented in **Table 31**.

Table 31: Features of interest for bats identified during the 2023 static bat surveys for Dogger Bank South Offshore Wind Farms Bat Survey Area.

Notable feature	Grid reference	Transect number	Description of activity during the survey season
Stream Dike	TA 16922 54064	1	Seven species of bat identified to species level and two to genus level were recorded by static monitoring device on Stream Dike. Common pipistrelle, soprano pipistrelle and whiskered/Brandt's bats were observed foraging along the Dike by surveyors during activity surveys across five survey visits.
Main Street, Skipsea	TA 16902 55019	1	One common pipistrelle was observed foraging along Main Street during two survey visits and was seen to commute along the street on four further survey visits.
Cliff Road, Skipsea	TA 17538 55115	1	A maximum count of 11 common pipistrelle were recorded commuting east along Cliff Road towards the coast during the July survey visit. Lower numbers of common pipistrelles were observed commuting in the same way on four further visits across the survey season
Nunkeeling Priory	TA 14523 50160	2	Bats were observed foraging around mature trees adjacent to Nunkeeling Priory on four visits across the survey season. Activity was mostly attributed to common pipistrelle, with soprano pipistrelle recorded in April only. Six species were identified to species level and one to genus level across the survey season by the static monitoring device which was located on a hedgerow adjacent to the Priory.
Hedges bordering field south of Moor House Farm	TA 14239 50928	2	Bat foraging activity was recorded around the hedgerows bordering an arable field on six visits during the survey season. In June, three species (common pipistrelle, soprano pipistrelle and whiskered/Brandt's) were recorded foraging continuously along these features with a total of 36 passes recorded by surveyors within a 20-minute period.
Field east of Catwick Heads Road	TA 14991 45724	3	The southern field boundary hedgerow recorded continuous foraging by common pipistrelle and soprano pipistrelle on three survey visits across the survey season. Commuting passes by noctule, common pipistrelle and soprano pipistrelle were also recorded.
Woodland along Catfoss Drain	TA 14564 46055 - TA 14730 46195	3	Common pipistrelle and soprano pipistrelle were recorded continuously foraging around the woodland along Catfoss Drain on all survey visits.

Notable feature	Grid reference	Transect number	Description of activity during the survey season
Catwick Heads Road	TA 14569 45712	3	Bats were recording continuously foraging along the unlit, tree-lined Catwick Heads Road on four survey visits. Species included common pipistrelle, soprano pipistrelle and noctule.
Hedgrows west of Sinkler H N & Son Farm	TA 09003 42076	4	One common pipistrelle was observed and recorded foraging continuously on three survey visits, and commuting along the hedgerow on a further two survey visits.
Meaux Lane, Routh	TA 09566 41848	4	One common pipistrelle was recorded continuously foraging along Meaux Lane on three survey visits across the survey season. Commuting passes of <i>Myotis</i> species were also recorded on three occasions.
Holderness Drain	TA 07284 43070	5	Bats were recorded foraging or commuting along Holderness Drain on all survey visits across the season. Common pipistrelle foraged continuously on three visits, and one noctule and a <i>Myotis</i> species foraged continuously during the June survey visit. The static monitoring device located on Holderness Drain recorded six different species identified to species level and one to genus level. A significant increase in bat activity was recorded by the static detector in October on Holderness Drain.
River Hull	TA 05345 42899	6	Common pipistrelle bats were recorded foraging continuously along the River Hull on five survey visits. Noctule and Daubenton's bats were also recorded foraging on the river. The static monitoring device located on the River Hull recorded the highest levels of activity across all transects and recorded five species identified to species level and one to genus level across the survey season.
Turf Gutter	TA 05908 42568	6	Continuous foraging common pipistrelles were recorded on two survey visits, and commuting passes on a further four visits across the survey season.
Hedgerow east of River Hull	TA 05975 42983	6	Bats were recorded in low numbers commuting along the hedgerow. Common pipistrelle, soprano pipistrelle and noctule were recorded across the survey season.
Greenway north of Molescroft	TA 02395 41565	7	Common pipistrelle bats were recorded foraging continuously on six survey visits, with soprano pipistrelle also recorded foraging on one visit along the greenway. Commuting common pipistrelle and noctule were also recorded.

Notable feature	Grid reference	Transect number	Description of activity during the survey season
			The static monitoring device located on the greenway recorded four species were identified to species level and one to genus level across the survey season.
Field boundary adjacent to Beverly Road	TA 00926 39778	8	Commuting passes of common pipistrelle were recorded along the hedgerow on three survey visits, and foraging activity observed on a further two visits.
Woodland off Newbald Road	TA 01245 38725	8	Continuous foraging of multiple noctule and common pipistrelle bats was recorded on four survey visits, with commuting passes recorded on a further two visits. The static monitoring device located on the edge of the woodland copse recorded six different species identified to species level and two to genus level across the survey season.
Woodland south of A1079	TA 02248 36684	9	The woodland edge was used for foraging by common pipistrelle on five site visits, and by commuting common pipistrelle on a further one survey.
A1079 Bridge	TA 02907 36717	9	Common pipistrelles were recorded foraging continuously over a road bridge across the A1079 on two survey visits.
Woodland east of A164	TA 02964 36110	10	A maximum count of three common pipistrelles were observed foraging simultaneously along the woodland on three survey visits. Foraging noctule, soprano pipistrelle and a <i>Myotis</i> species were also recorded on one survey visit. Bat activity was observed on all survey visits, except October.
Field boundary south west of Park Lane	TA 03689 35371	10	A maximum count of eight common pipistrelle bats were recorded commuting along the hedgerow during the June survey visit, and a maximum count of three individuals in July. Common pipistrelle and soprano pipistrelle were also recorded foraging in September and October. In August a common pipistrelle, a whiskered/Brandt's and an unidentified <i>Myotis</i> species were recorded commuting along the hedgerow.
Park Lane road bridge over A1079	TA 03867 36111	10	A single common pipistrelle was recorded commuting over the road bridge during three survey visits, and on a further three surveys one common pipistrelle was foraging continuously along Park Lane. On one survey visit a noctule and a whiskered/Brandt's bat was also recorded commuting along this feature.

Further Discussion

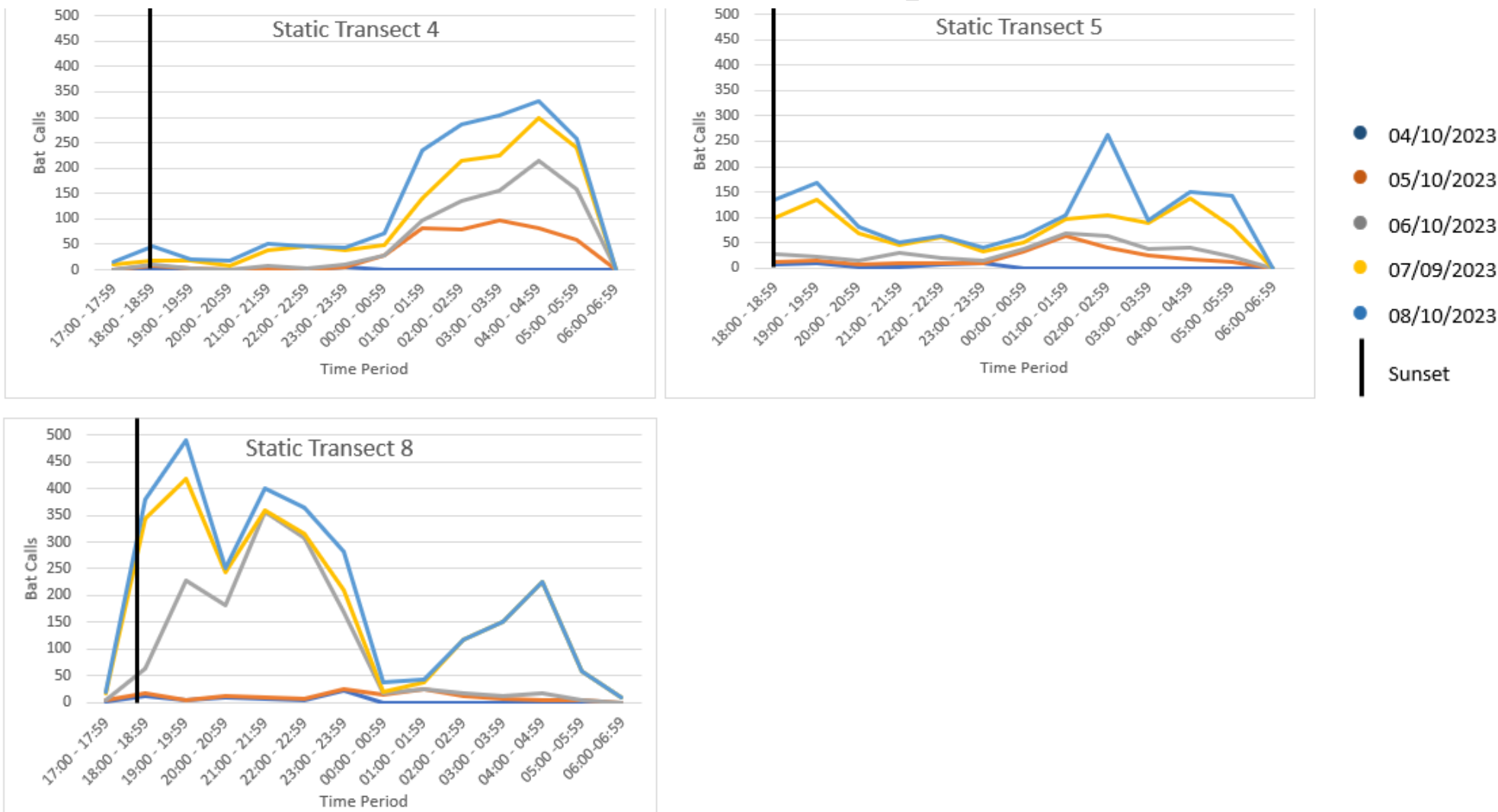
A significant increase in bat activity was recorded by static monitoring devices at locations on Transect 4, Transect 5 and Transect 8 in October. Transect 4 recorded 1446 more calls over the five-day monitoring period than the next highest recorded number of calls recorded in June (an increase of 458%). Transect 5 recorded 984 more calls than the next highest number in August (an increase of 71%). Transect 8 recorded 1408 more calls than the next highest number in August (an increase of 50%).

The increase in bat activity on Transect 4 occurred each night within the October monitoring period between midnight and 5am, indicating possible swarming which takes place during the night rather than around dusk or dawn. The activity recorded on Transect 5 during the October monitoring period did not present any spikes in activity but was elevated and constant throughout each night and therefore likely attributed to commuting and constant foraging. Transect 8 recorded a large increase in activity immediately following sunset and continued until approximately midnight, which may indicate the presence of a nearby roost, although this level of activity was not seen in previous months.

The vast majority of the calls during the activity peaks were attributed to common pipistrelle, with other species recorded throughout the night in lower numbers. Common pipistrelle is not considered to be a classic swarming species, it is noteworthy that they make up over 50% of the calls at this location in October.

Across each of the locations, activity levels followed their respective patterns as described, but with lower activity levels on the first night of monitoring (04/10/2023), and higher levels on the last night of monitoring (08/10/2023). High winds (Beaufort scale 5) during the first three nights of monitoring could have accounted for this lower activity level. **Figure 2** presents the bat activity over time per location, per night of recording.

Figure 2: Bat calls recorded during October static monitoring at locations T4, T5 and T8 within the Dogger Bank South Offshore Wind Farms Bat



4 CONCLUSIONS AND GENERAL RECOMMENDATIONS

Bat activity, and diversity of bat species, within the Bat Survey Area varied between transects and across the survey season. The highest level of bat activity was recorded on Transect 6, and the greatest diversity of species was recorded on Transect 5 and Transect 8. Sunset temperatures across the survey visits in April were lower than the recommended 10°C, and whilst this was unavoidable due to the cold temperatures experienced throughout the whole month, it was acknowledged that any data captured throughout this sub-optimal period would be better than no data captured at all. These low temperatures were experienced across all transects undertaken throughout the month and therefore there is no bias in the data, although it should be noted that bat activity levels may have been lower throughout this month due to the cooler temperatures and not as a result of bats not utilising the habitats present. Surveys undertaken throughout other months were optimal and thus these implications only relate to the month of April 2023.

Activity levels at the static monitoring device locations on T4, T5 and T8 were significantly higher than across the rest of the survey season. This could be attributed to swarming activity, presence of a nearby transitional roost used prior to hibernation, or increased foraging prior to hibernation. Further survey would be required to determine the cause of the increased activity. It is recommended that works in these areas do not take place overnight and artificial light is minimised during the autumn months (September to November) to avoid disturbance or disruption of flight lines and foraging features.

The rarity of species within the assemblage was assessed using the UK Bat Mitigation Guidelines (Reason, P.F. and Wray, S. (2023)). Common pipistrelle, soprano pipistrelle and brown long-eared bats are considered to be 'widespread' within the Northern England region. Whiskered/Brandt's, Daubenton's, Natterer's bat and noctule are considered to be 'widespread in many geographies, but not as abundant in all', and Leisler's bat and Nathusis' pipistrelle are considered to be 'rarer or restricted distribution'. No Annex II species, such as Bechstein's bat *Myotis bechsteinii*, persist in this region, and therefore where bats have been identified to genus level only, this would not include these rarer species.

The removal of sections of the features listed in **Table 30**, and other dark linear features such as hedgerows within the Bat Survey Area as part of the Project should be minimised to avoid disrupting the foraging or commuting routes taken by bats, and to maintain connectivity between habitats. It is recommended that, any sections of hedgerow, woodland, ditch or watercourse which are removed or impacted should be replaced, on at least a like for like basis, or ideally enhanced. Particular care should also be taken when impacting areas near the River Hull.

General good working methods should also be followed throughout the construction period including not carrying out works after dusk or before dawn, not running generators and machinery that emit significant noise levels through the night, and minimising artificial light spill onto linear features as discussed which can disrupt bat light paths and commuting routes.

To minimise any negative effects on bat foraging habitat it is recommended that any permanent lighting to be installed within the development post-construction, is bat friendly. It

is recommended that a lighting scheme should be designed in accordance with Guidance Note 08/23: *Bats and artificial lighting at night (BCT & ILP, 2023)* to ensure minimal impact to bat commuting and foraging routes.

It was noted within the limitations that during some surveys across the season device malfunction resulted in either a lack of recordings or GPS tagging of the bat echolocation calls. Due to the vast quantity of data recorded and analysed across the 2023 survey season, and supplementation of data based on surveyor observations, the recording device failures are not considered a significant constraint in making conclusions about the bat activity within the Bat Survey Area.

In addition to bat transect and static monitoring surveys, Ground Level Tree Assessment surveys (GLTA) (Peak Ecology, 2023) were undertaken to identify trees within the Bat Survey Area which had the potential to support roosting bats.

5 **REFERENCES**

BCT & ILP (2023) *Bats and artificial lighting at night: Guidance note 08/23*. Bat Conservation Trust and Institute of lighting professionals.

British Standards Institution (2013) *BS42020:2013 Biodiversity – code of practice for planning and development*. BSI Standards Ltd, London

Chartered Institute of Ecology and Environmental Management (2013) *Competencies for Species Surveys in Britain and Ireland; Overview*. CIEEM, Winchester. Online [Available at]

Collins J. (ed) (2016) *Bat Surveys For Professional Ecologists: Good Practice Guidelines (3rd Edition)*. Bat Conservation Trust, London.

Department for Levelling Up, Housing & Communities (2023) National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Multi-Agency Geographic Information for the Countryside Website. <http://www.magic.gov.uk/>

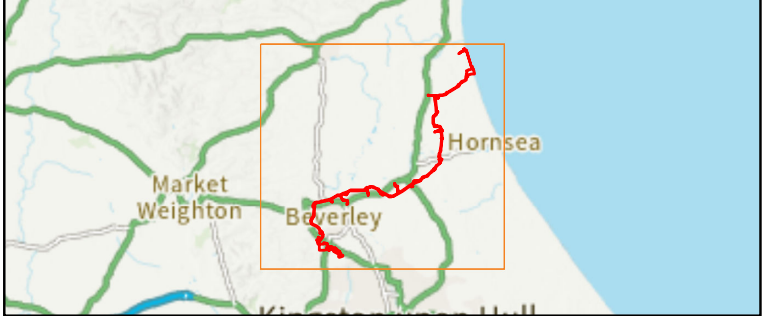
Peak Ecology Ltd (2022a). *Dogger Bank Desk Study Report*. Peak Ecology Ltd, Derbyshire.

Peak Ecology Ltd (2022b). *Bat Transects and Static Monitoring: Dogger Bank South Offshore Wind Farms*. Peak Ecology Ltd, Derbyshire.

Peak Ecology Ltd (2023) *Ground Level Tree Assessment Dogger Bank South (DBS) Offshore Wind Farms*. Peak Ecology Ltd, Derbyshire.

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

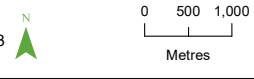
APPENDIX A: Transect and static monitoring overview of the Dogger Bank South Offshore Wind Farms Bat Survey Area



Desk Study Survey Results

	Onshore Development Area
	Onshore Survey Area (1,000m Buffer)
	Brown Long-eared Bat
	Daubenton's Bat
	Nathusius's Pipistrelle
	Noctule Bat
	Parti-coloured Bat
	Whiskered Bat
	Common Pipistrelle
	Pipistrelle species
	Unidentified bat species
	Bat roost record

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix A.1A. Bat Desk Study Data - Section A

VER	DATE	REMARKS	Drawn	Checked
2.1	30/04/24	BatDeskStudy- Overview	MP	FM

DRAWING NUMBER:
 PeakEcology/BatDeskStudy/Interim/Suitability

<p>ECOLOGICAL CONSULTANTS</p>	<p>Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk</p>	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:87,000



APPENDIX B: Dogger Bank South Offshore Wind Farms bat transect survey weather conditions.

Date	Transects completed	Temperature/ °C		Precipitation/ (0-6)		Cloud Cover /Oktas (0 -8)		Wind/ Beaufort scale (0 – 12)	
		start	end	start	end	start	end	start	end
April									
12/04/2023	1	7	7	0	0	7	7	3	2
13/04/2023	4	9	7	0	0	2	1	3	2
17/04/2023	5, 6	7	5	0	0	8	8	2	1
18/04/2023	7, 8	9	10	0	0	0	0	1	1
19/04/2023	9, 10	7	6	0	0	0	0	1	1
25/04/2023	3	4	4	0	0	2	2	0	0
26/04/2023	2	9	7	0	0	6	7	1	1
May									
11/05/2023	5	11	10	0	0	8	8	2	2
15/05/2023	1	8	7	0	0	6	5	0	1
22/05/2023	2, 4	11	9	0	0	1	6	1	2
23/05/2023	6, 8	13	11	0	0	5	2	1	0
24/05/2023	9, 10	14	12	0	0	8	4	1	1
30/05/2023	3	11	11	0	1	8	8	4	1
31/05/2023	7	10	10	0	0	8	8	2	1
June									
20/06/2023	1, 2, 3 (Dusk)	16	16	0	0	2	2	2	2
21/06/2023	1, 2, 3 (Dawn)	14	14	0	0	2	3	2	2
21/06/2023	4, 5, 6 (Dusk)	21	18	2	0	6	3	1	0
22/06/2023	4, 5, 6 (Dawn)	16	15	0	0	3	7	1	1
27/06/2023	7, 8 (Dusk)	17	17	1	0	8	8	3	1
28/06/2023	7, 8 (Dawn)	17	16	0	0	4	8	3	2
29/06/2023	9, 10 (Dusk)	15	14	0	0	1	3	2	1
July									
03/07/2023	3	13	12	0	0	2	2	1	0
04/07/2023	2	14	13	0	0	7	8	0	1
05/07/2023	4	15	15	0	0	3	2	1	1
11/07/2023	1, 9 (Dusk)	16	15	0	0	3	2	1	1
12/07/2023	9, 10 (Dawn)	12	12	0	0	3	2	3	2
12/07/2023	7, 8	15	14	0	0	3	3	1	1
13/07/2023	5, 6	18	15	0	0	5	4	0	1
August									
08/08/2023	1, 3, 4	20	21	0	0	1	2	5	1
09/08/2023	5, 6, 7	17	17	0	0	8	5	1	1
10/08/2023	8, 10	20	20	0	0	2	1	2	2
15/08/2023	2	17	15	0	0	4	2	0	0
16/08/2023	9	16	16	0	0	1	7	0	0

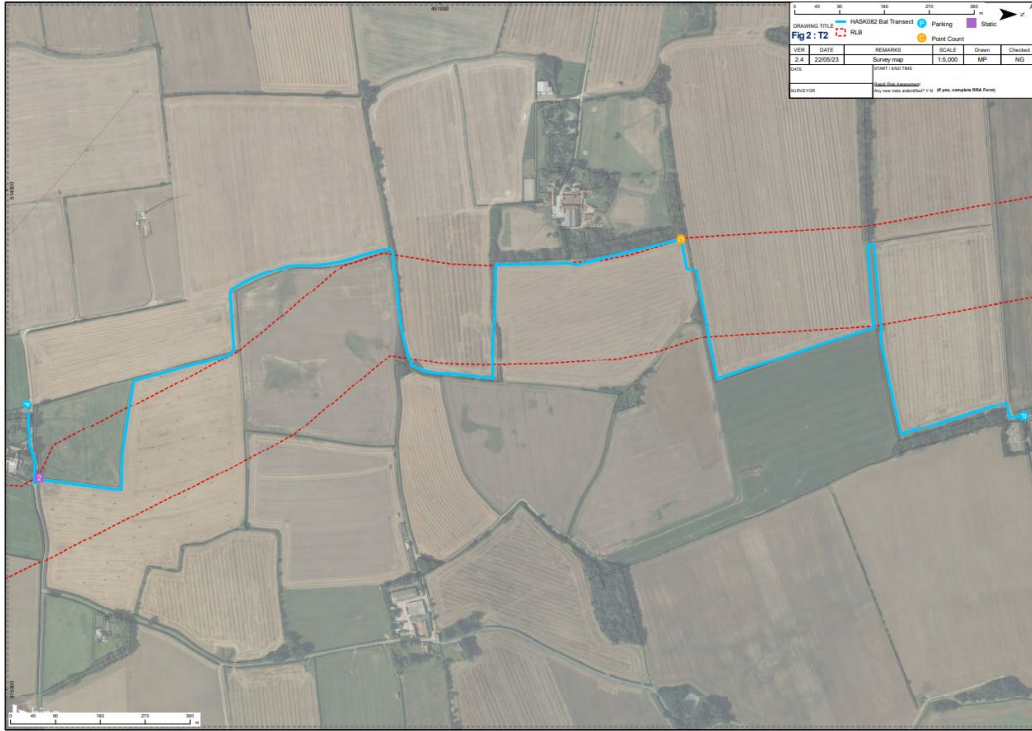
Date	Transects completed	Temperature/ °C		Precipitation/ (0-6)		Cloud Cover /Oktas (0 -8)		Wind/ Beaufort scale (0 – 12)	
		start	end	start	end	start	end	start	end
September									
05/09/2023	9, 10	18	16	0	0	0	0	1	1
06/09/2023	7, 8	19	16	0	0	4	5	1	1
07/09/2023	5, 6	18	16	0	0	3	8	1	0
13/09/2023	1	15	14	0	0	5	7	5	5
25/09/2023	2, 3	17	16	0	0	7	7	2	1
26/09/2023	4	17	16	0	0	3	4	2	2
October									
03/10/2023	8, 9, 10	14	13	0	0	2	4	3	2
04/10/2023	7	15	15	0	0	7	8	3	3
09/10/2023	2, 3, 6	17	16	0	0	2	3	1	2
10/10/2023	1, 5	19	18	0	0	4	4	4	4

**APPENDIX C: Dogger Bank South Offshore Wind Farms Bat Static Monitoring Survey
 Weather Conditions**

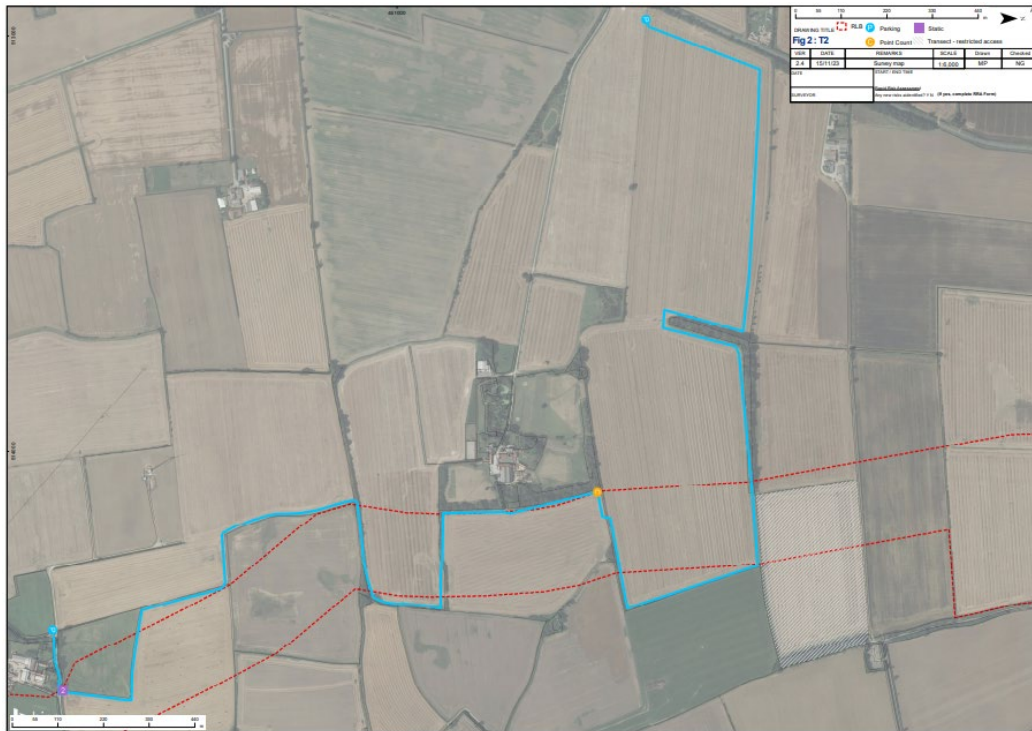
Date	Temperature/ °C at sunset	Precipitation/ (0-6)	Humidity / %	Wind/ Beaufort scale (0 – 12)
April				
19 th	11	0	79	3
20 th	10	0	86	4
21 st	9	0	100	3
22 nd	14	0	76	2
23 rd	10	0	86	2
May				
17 th	11	0	85	2
18 th	15	0	82	3
19 th	14	0	82	3
20 th	11	0	88	2
21 st	12	0	82	2
June				
22 nd	17	0	94	3
23 rd	20	0	78	4
24 th	23	0	78	2
25 th	18	2	88	1
26 th	17	0	60	3
July				
6 th	19	0	60	3
7 th	23	0	65	3
8 th	19	0	94	2
9 th	17	1	78	3
10 th	18	0	78	4
August				
10 th	21	0	78	3
11 th	22	0	50	3
12 th	18	0	83	3
13 th	19	0	68	3
14 th	19	0	83	6
September				
7 th	20	0	83	2
8 th	19	0	88	2
9 th	22	0	78	2
10 th	21	1	83	2
11 th	21	1	83	2

Date	Temperature/ °C at sunset	Precipitation/ (0-6)	Humidity / %	Wind/ Beaufort scale (0 – 12)
October				
4 th	15	0	72	5
5 th	16	1	77	5
6 th	16	1	83	5
7 th	17	0	73	4
8 th	19	0	73	3

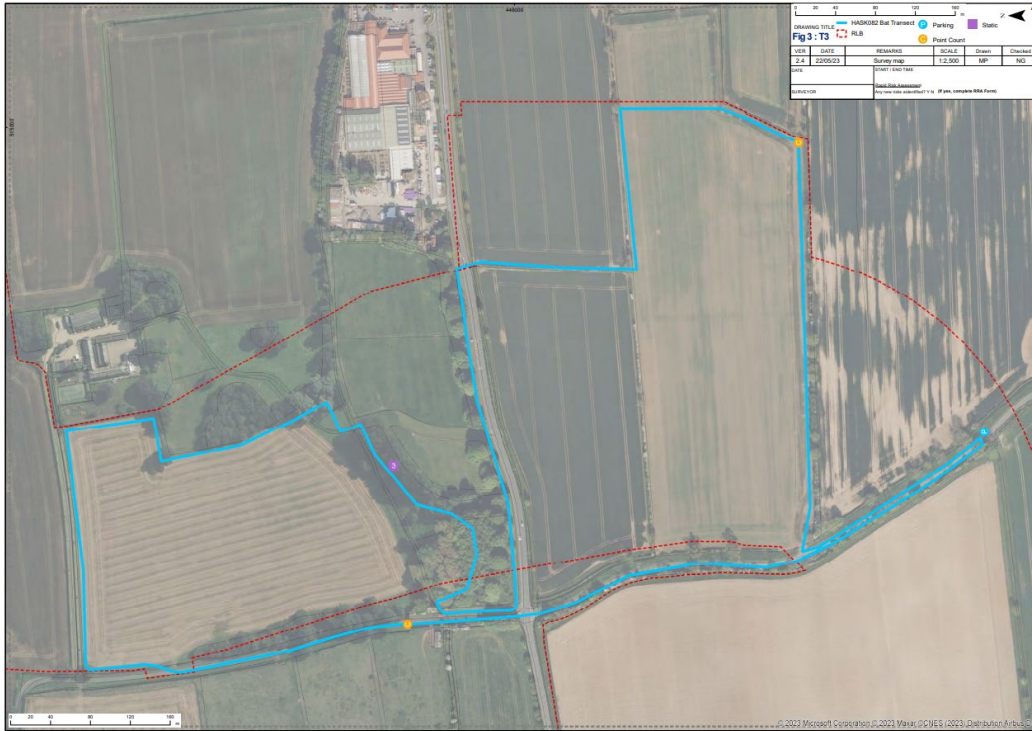
Initial transect route T2 (April – August inclusive):



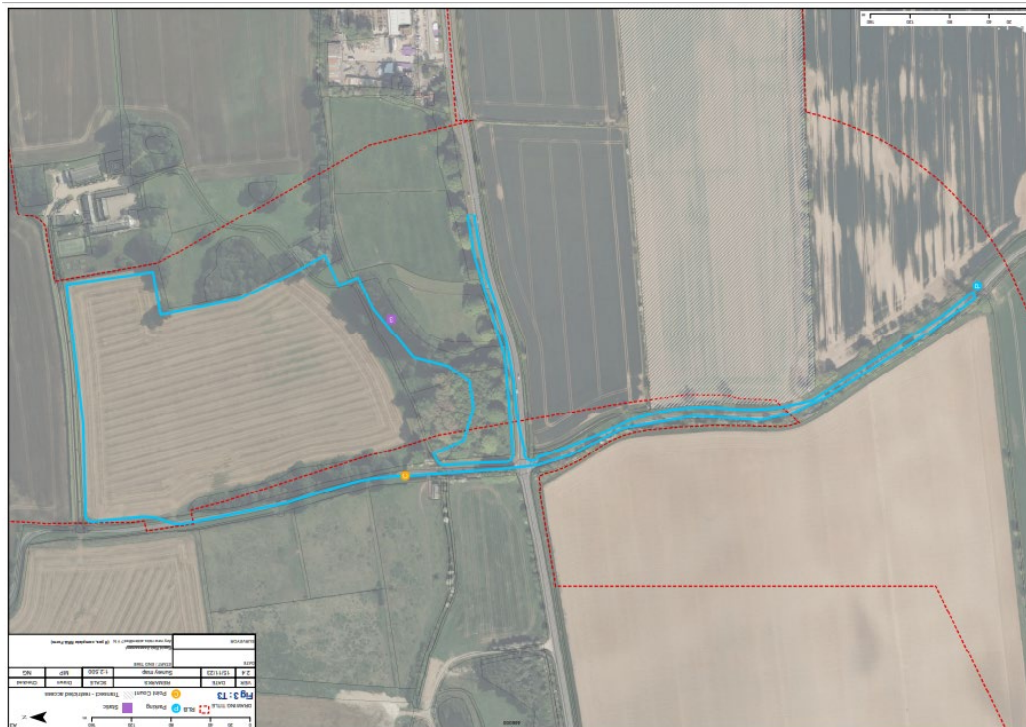
Amended transect route T2 (September – October inclusive):



Initial transect route T3 (April – August inclusive):



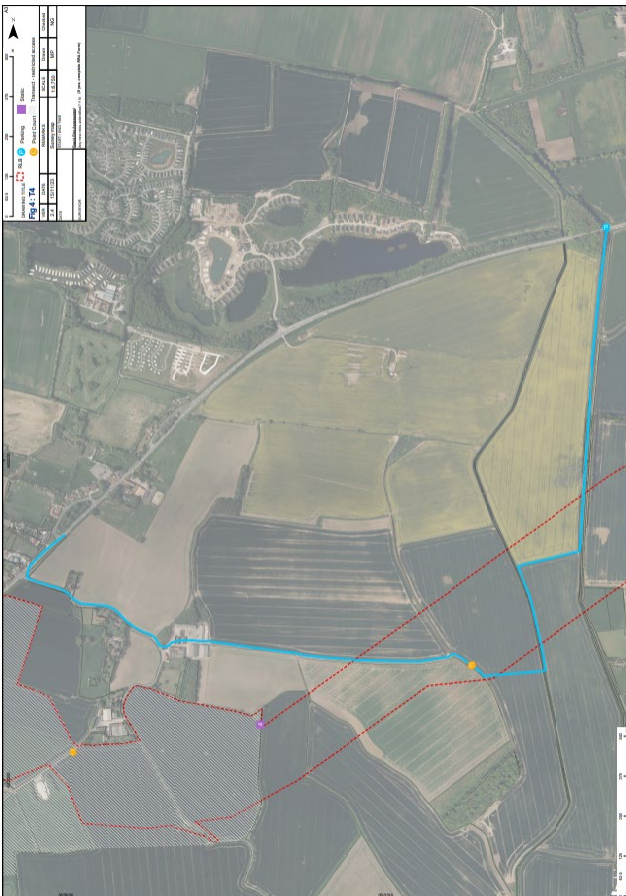
Amended transect route T3 (September – October inclusive):



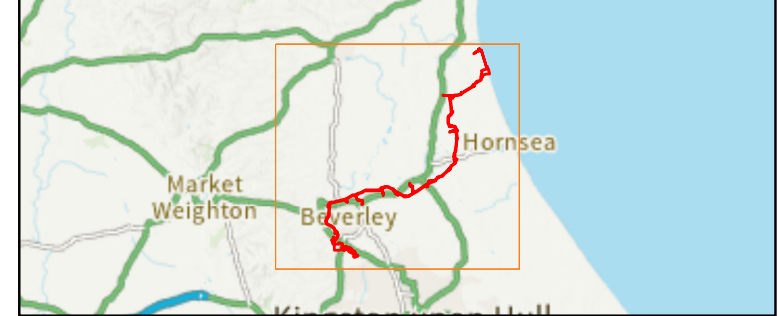
Initial transect route T4 (April – August inclusive):



Amended transect route T4 (September only):



**APPENDIX E: Map of bat species records within a 2km buffer of the Dogger Bank
South Offshore Wind Farms Bat Survey Area**

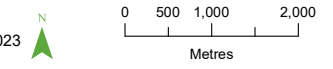


Desk Study Survey Results

	Onshore Development Area
	Onshore Survey Area (1,000m Buffer)
	Brown Long-eared Bat
	Daubenton's Bat
	Nathusius's Pipistrelle
	Noctule Bat
	Parti-coloured Bat
	Whiskered Bat
	Common Pipistrelle
	Pipistrelle species
	Unidentified bat species
	Bat roost record

Additional Information:
 Roost records refer to all records within the search data whereas individual species records refer to records recorded since 2005

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix E. Map of bat species records within a 2km buffer of the Dogger Bank South Offshore Wind Farms Onshore Study Area

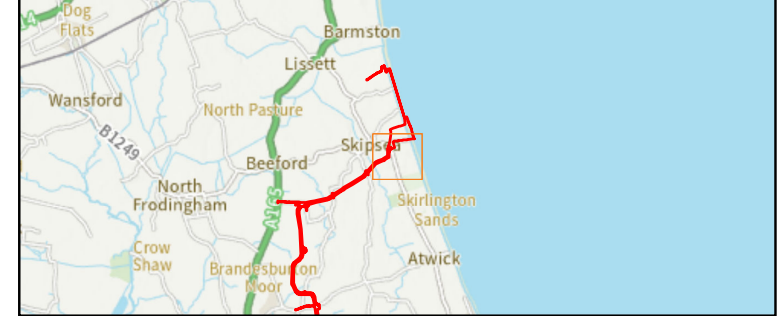
VER	DATE	REMARKS	Drawn	Checked
2.1	30/04/24	BatDeskStudy - Wide	MP	NG

DRAWING NUMBER:
 PeakEcology/BatDeskStudy/Wide

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:87,000



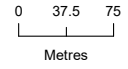
APPENDIX F: Dogger Bank South Offshore Wind Farms bat survey transect maps



Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

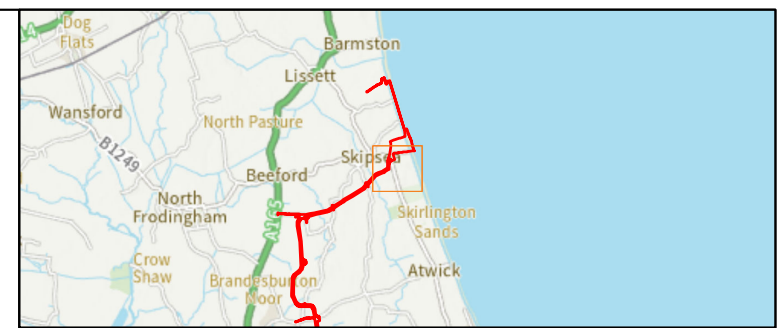
DRAWING TITLE
Appendix F.1.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

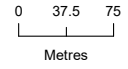




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

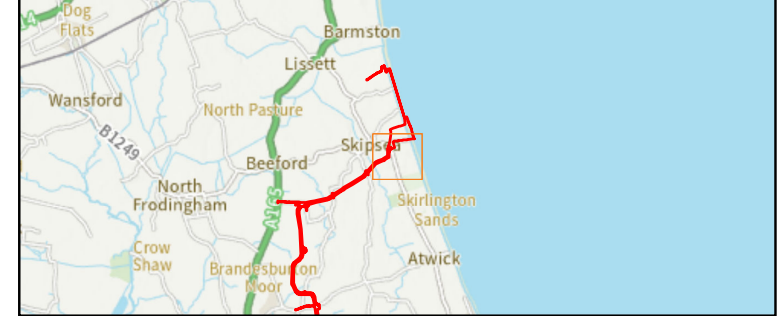
DRAWING TITLE
Appendix F.1.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

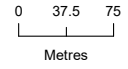




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

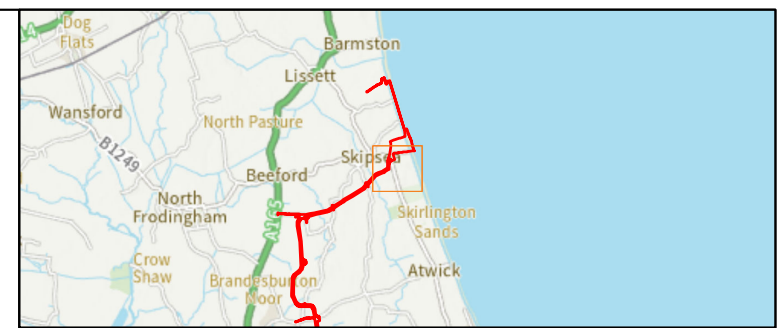
DRAWING TITLE
Appendix F.1.3: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER: **PeakEcology/Bats/Transect**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

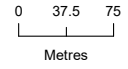




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

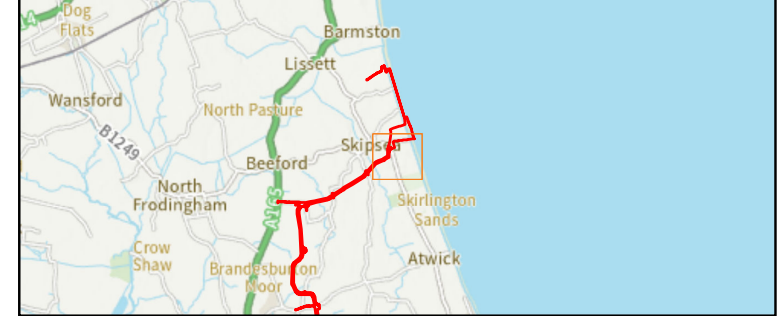
DRAWING TITLE
Appendix F.1.4: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 peakecology LIMITED Ecological Consultants Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
	PLOT SIZE	A3
	SCALE	1:6,000

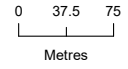




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

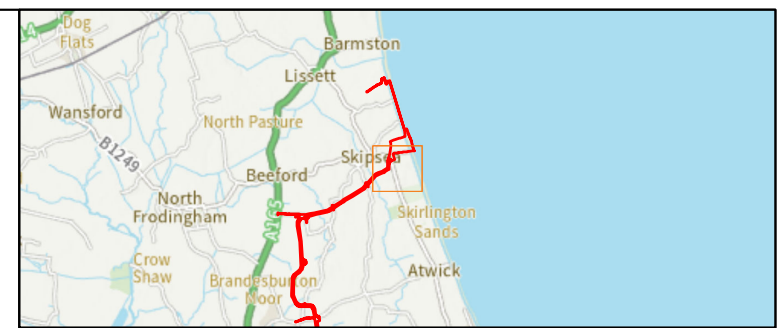
DRAWING TITLE
Appendix F.1.5: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, July

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - July	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

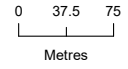




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.1.6: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, August

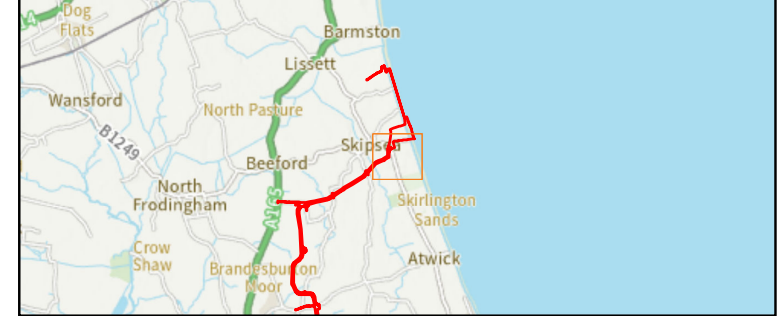
VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - August	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

ECOLOGICAL CONSULTANTS

Arden House,
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 Bakewell,
 Derbyshire,
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www.peakecology.co.uk

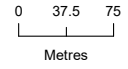
DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:6,000



Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.1.7: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, September

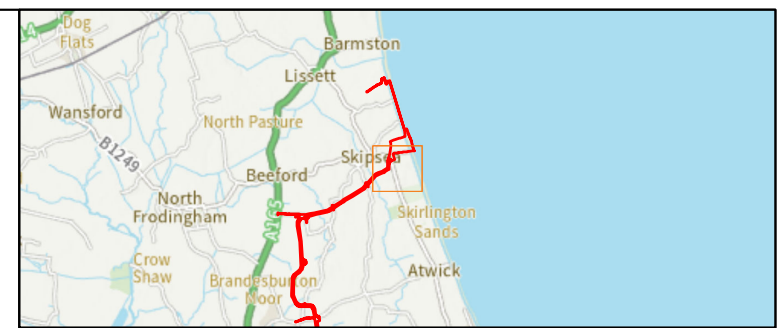
VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - September	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

ECOLOGICAL CONSULTANTS

Arden House,
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 Bakewell,
 Derbyshire,
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www.peakecology.co.uk

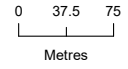
DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:6,000



Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

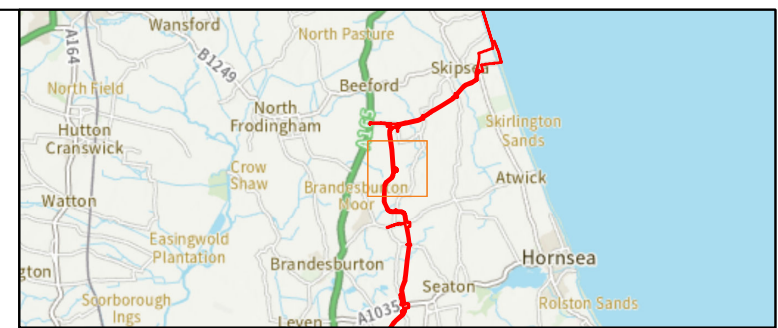
DRAWING TITLE
Appendix F.1.8: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 1, October

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - October	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

Arden House,
 Deepdale Business Park,
 Bakewell,
 Derbyshire,
 DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:6,000

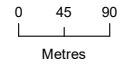


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

Source:
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Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

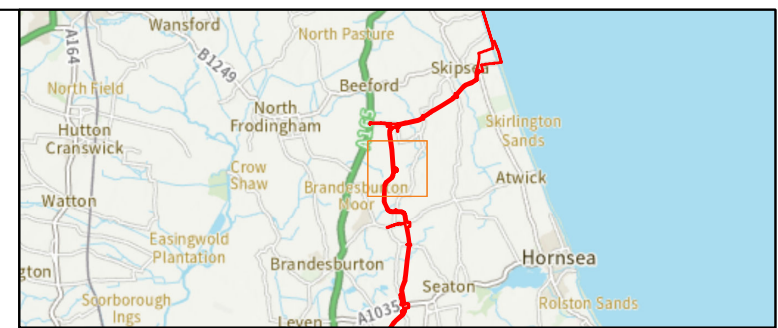
DRAWING TITLE
Appendix F.2.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

DRAWING NUMBER: **PeakEcology/Bats/Transect**

<p>peakecology LIMITED ECOLOGICAL CONSULTANTS</p>	<p>Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk</p>	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500

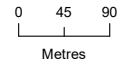




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.2.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

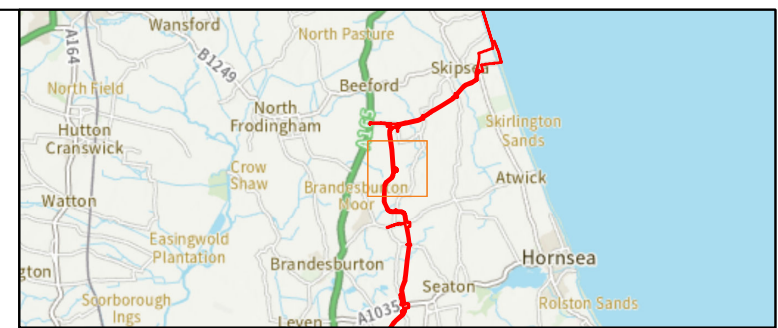
DRAWING NUMBER:
 PeakEcology/Bats/Transect

ECOLOGICAL CONSULTANTS

Arden House,
 Deepdale Business Park,
 Bakewell,
 Derbyshire,
 DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:7,500



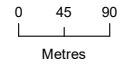


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

Source:
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PROJECT TITLE
DOGGER BANK SOUTH

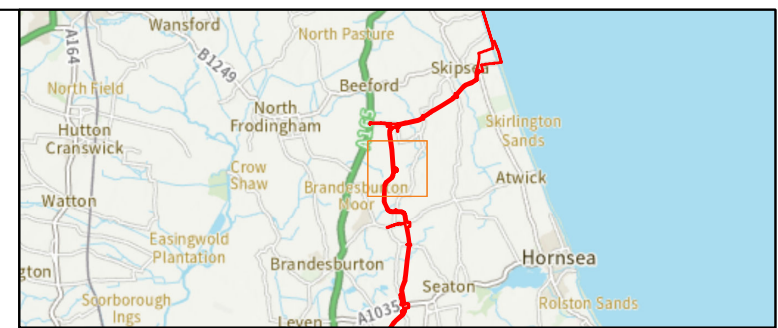
DRAWING TITLE
Appendix F.2.3: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 peakecology LIMITED ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500



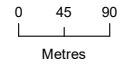


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

Source:
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Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

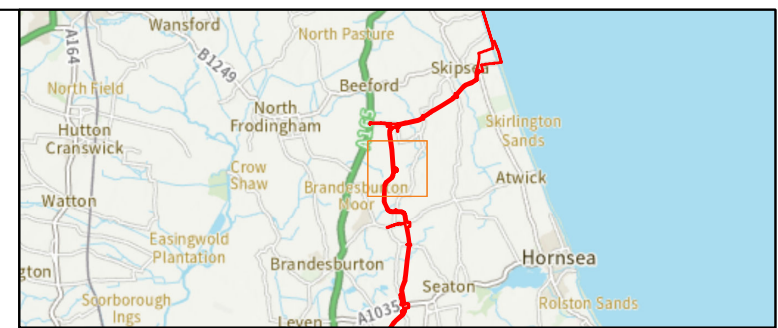
DRAWING TITLE
Appendix F.2.4: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
PeakEcology/Bats/Transect

 <small>ECOLOGICAL CONSULTANTS</small>	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500



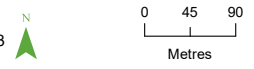


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

Source:
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Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

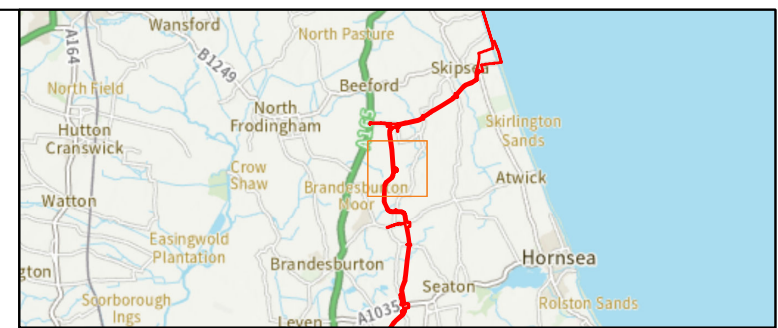
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Appendix F.2.5: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, July

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - July	MP	NG

DRAWING NUMBER:
PeakEcology/Bats/Transect

 peakecology LIMITED ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500

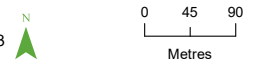




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

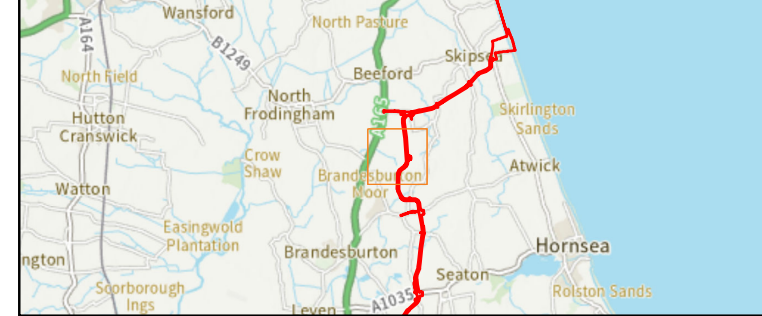
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Appendix F.2.6: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, August

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - August	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500

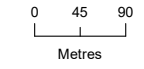




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.2.7: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, September

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - September	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500

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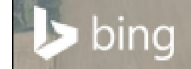
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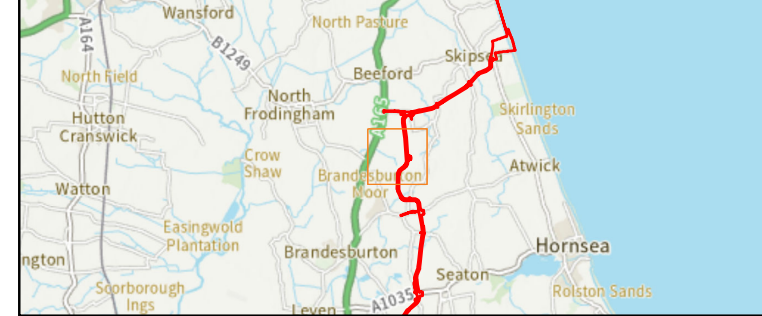
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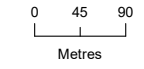




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



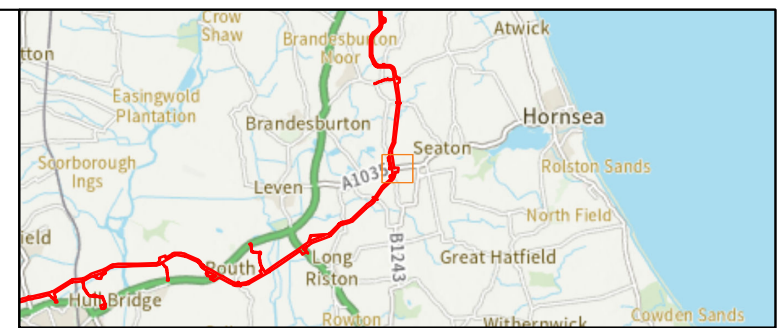
PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.2.8: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 2, October

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - October	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

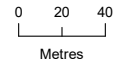
 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:7,500



Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

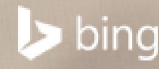
 ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
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	SCALE	1:3,500

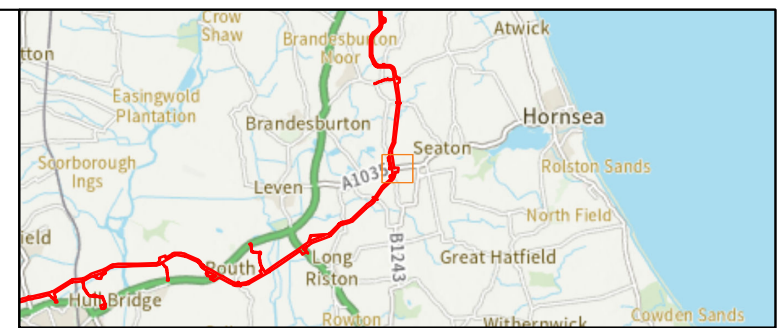
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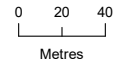




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

DRAWING NUMBER: **PeakEcology/Bats/Transect**

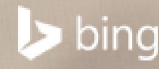
 peakecology LIMITED ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:3,500

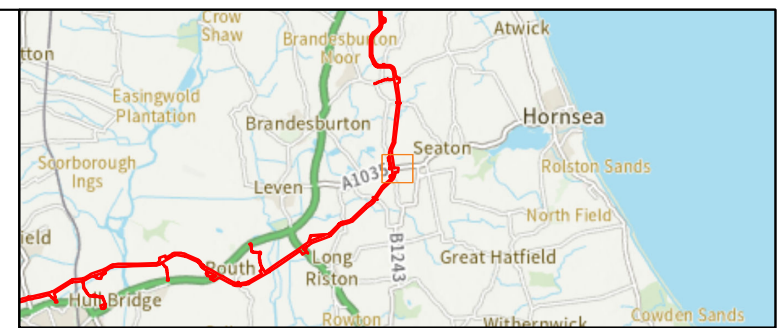
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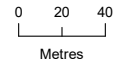




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.3: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

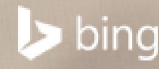
 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:3,500

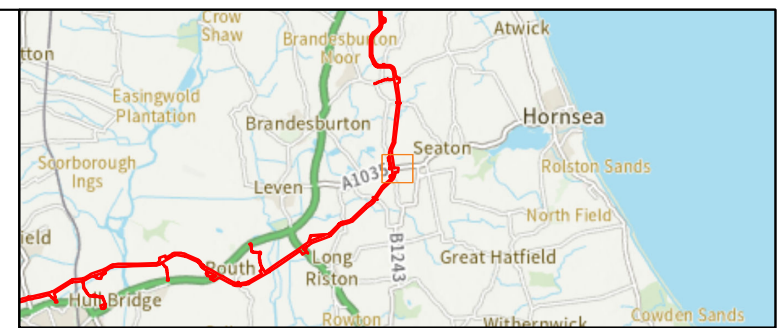
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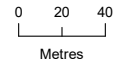




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.4: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

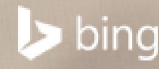
 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:3,500

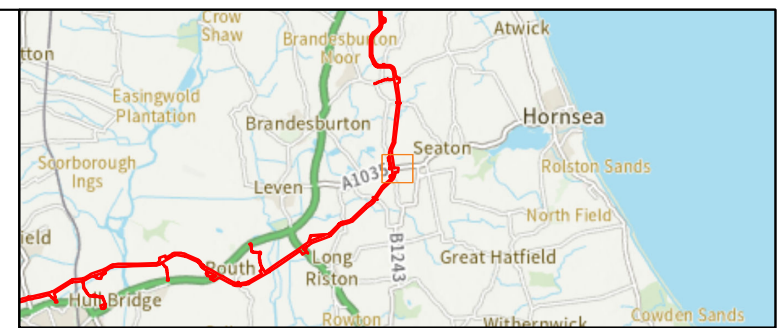
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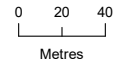




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.5: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, July

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - July	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

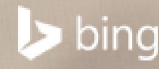
 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
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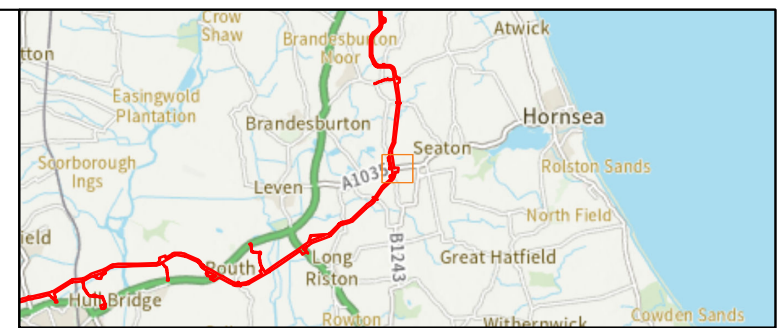
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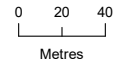




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



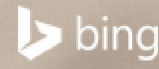
PROJECT TITLE
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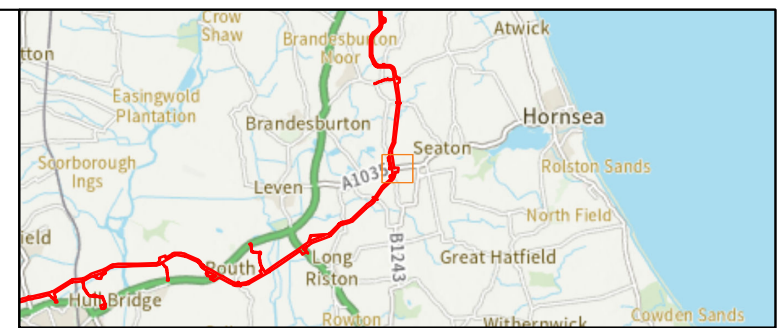
DRAWING TITLE
Appendix F.3.6: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, August

VER	DATE	REMARKS	Drawn	Checked
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DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:3,500

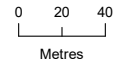




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.7: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, September

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - September	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

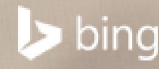
 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:3,500

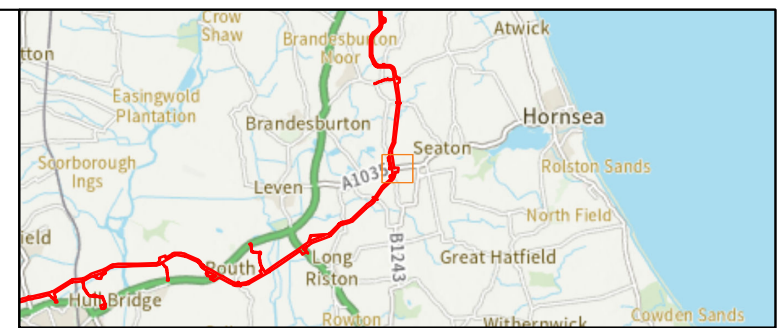
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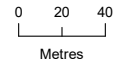




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.3.8: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 3, October

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - October	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

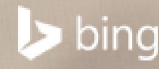
 ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
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	SCALE	1:3,500

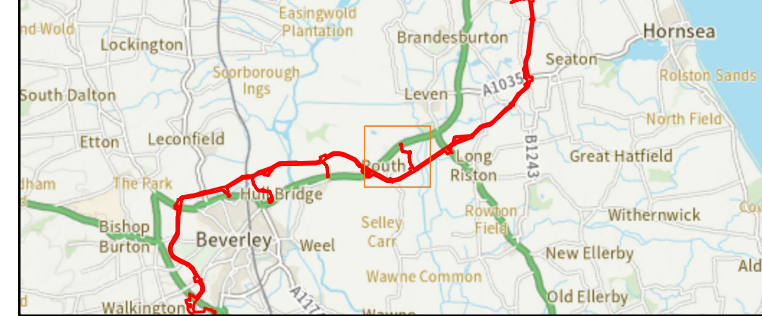
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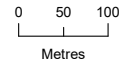




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.4.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

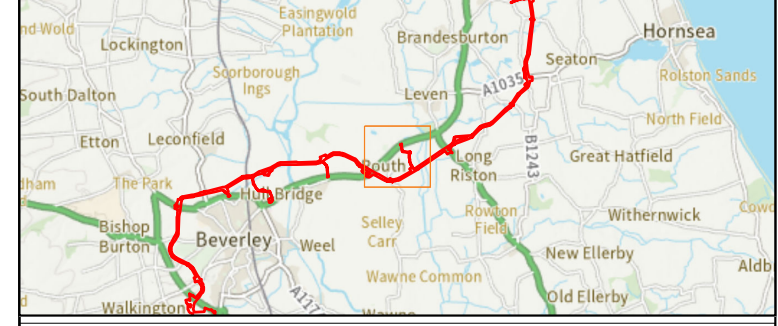
DRAWING NUMBER:
 PeakEcology/Bats/Transect

ECOLOGICAL CONSULTANTS

Arden House,
 Deepdale Business Park,
 Bakewell,
 Derbyshire,
 DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:8,500

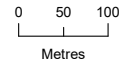




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



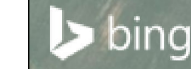
PROJECT TITLE
DOGGER BANK SOUTH

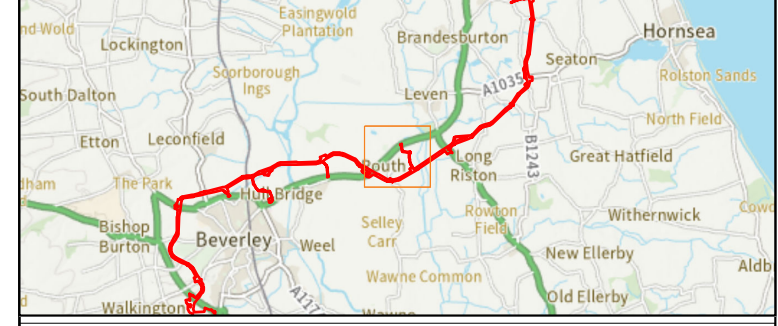
DRAWING TITLE
Appendix F.4.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

DRAWING NUMBER: **PeakEcology/Bats/Transect**

<p>peakecology <small>ECOLOGICAL CONSULTANTS</small></p>	<p>Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk</p>	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
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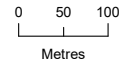




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



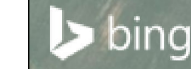
PROJECT TITLE
DOGGER BANK SOUTH

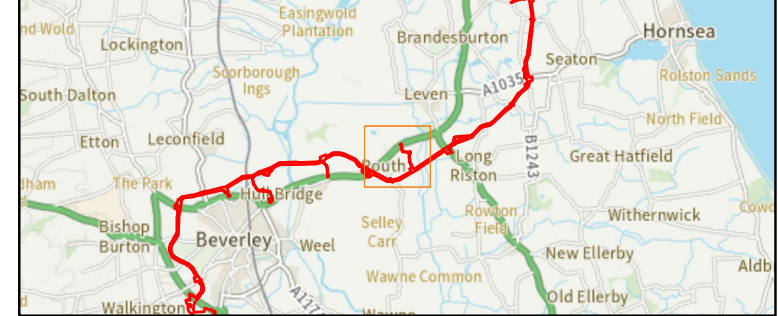
DRAWING TITLE
Appendix F.4.3: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

<p>peakecology ECOLOGICAL CONSULTANTS</p>	<p>Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk</p>	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:8,500

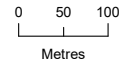




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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PROJECT TITLE
DOGGER BANK SOUTH

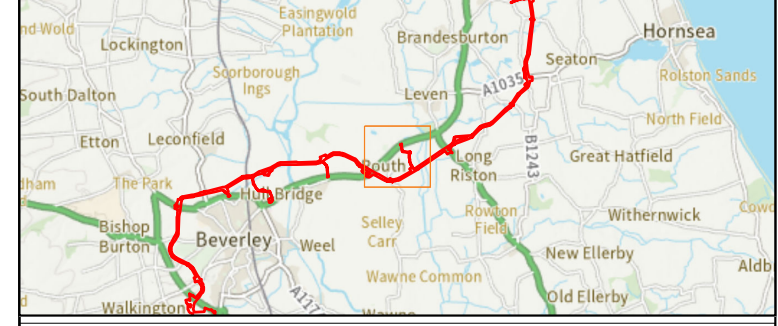
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Appendix F.4.4: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:8,500

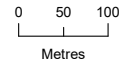




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.4.5: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, July

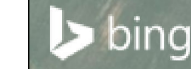
VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - July	MP	NG

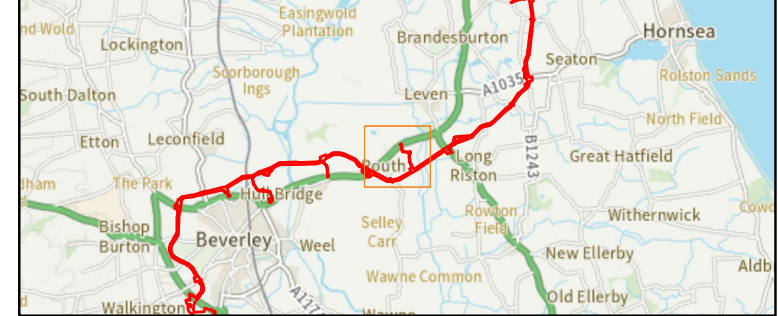
DRAWING NUMBER: **PeakEcology/Bats/Transect**

peakecology
ECOLOGICAL CONSULTANTS

Arden House,
 Deepdale Business Park,
 Bakewell,
 Derbyshire,
 DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:8,500

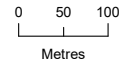




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.4.6: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, August

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - August	MP	NG

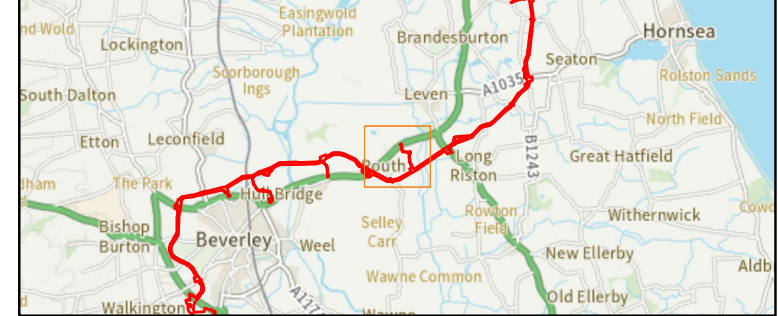
DRAWING NUMBER: **PeakEcology/Bats/Transect**

peakecology LIMITED
ECOLOGICAL CONSULTANTS

Arden House,
Deepdale Business Park,
Bakewell,
Derbyshire,
DE45 1GT.
www.peakecology.co.uk

DATUM	OSGB
PROJECTION	BNG
PLOT SIZE	A3
SCALE	1:8,500

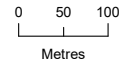




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

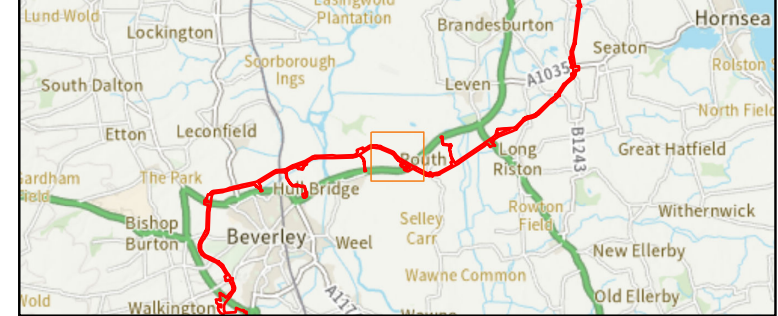
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Appendix F.4.7: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 4, September

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - September	MP	NG

DRAWING NUMBER: **PeakEcology/Bats/Transect**

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:8,500

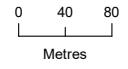




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

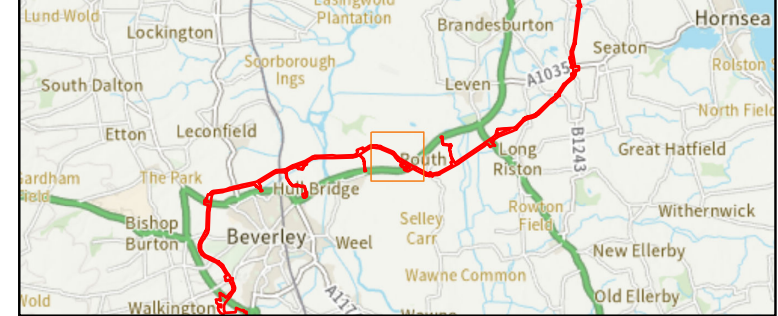
DRAWING TITLE
Appendix F.5.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500

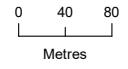




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

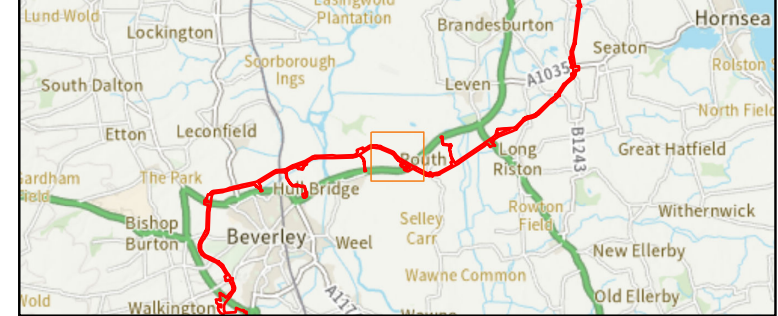
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Appendix F.5.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

<p>peakecology ECOLOGICAL CONSULTANTS</p>	<p>Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk</p>	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500

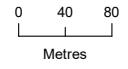




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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PROJECT TITLE
DOGGER BANK SOUTH

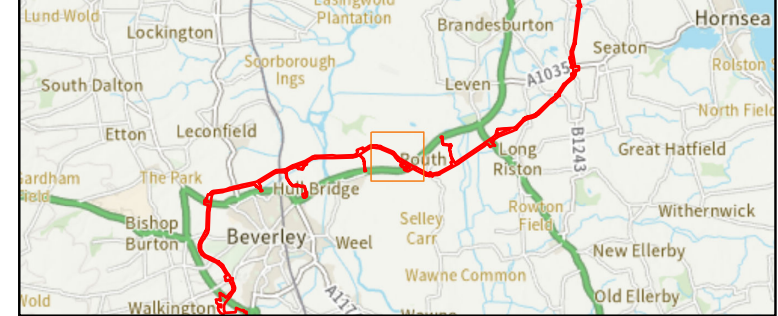
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Appendix F.5.3: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 peakecology LIMITED ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
	PLOT SIZE	A3
	SCALE	1:6,500

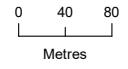




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

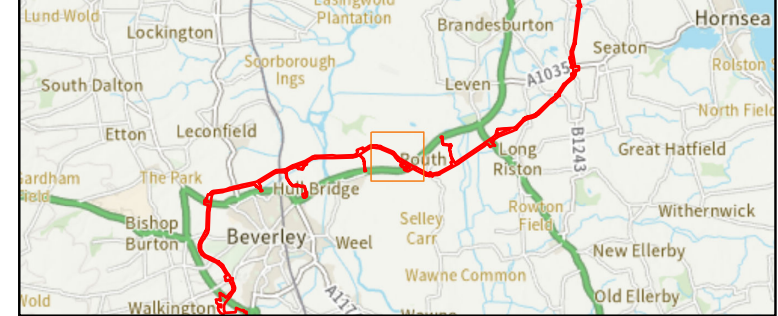
DRAWING TITLE
Appendix F.5.4: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, June

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - June	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500



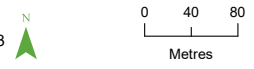


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

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Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

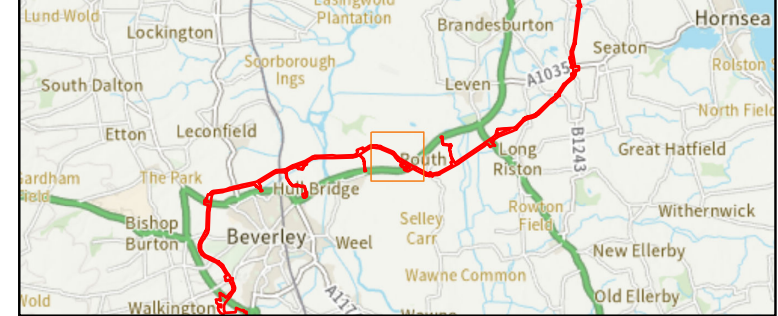
DRAWING TITLE
Appendix F.5.5: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, July

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - July	MP	NG

DRAWING NUMBER:
PeakEcology/Bats/Transect

 peakecology LIMITED ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500

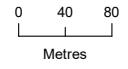




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

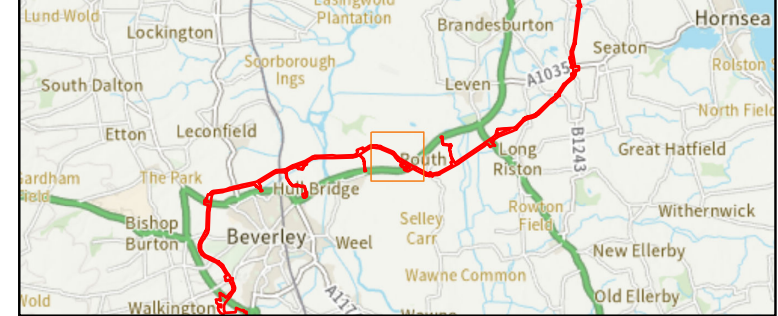
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Appendix F.5.6: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, August

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - August	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500

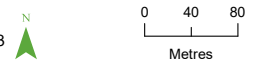




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

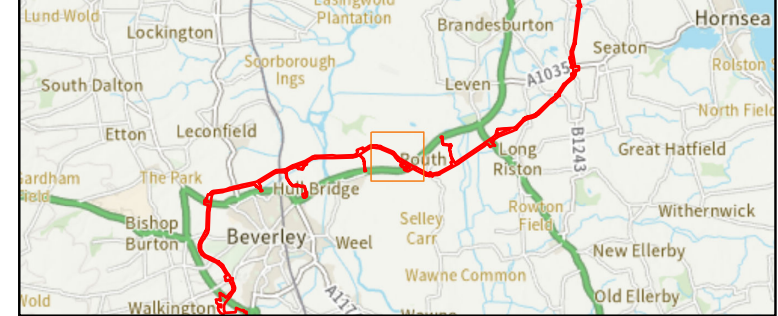
DRAWING TITLE
Appendix F.5.7: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, September

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - September	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
	PROJECTION	BNG
	PLOT SIZE	A3
	SCALE	1:6,500



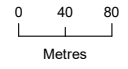


Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species

Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

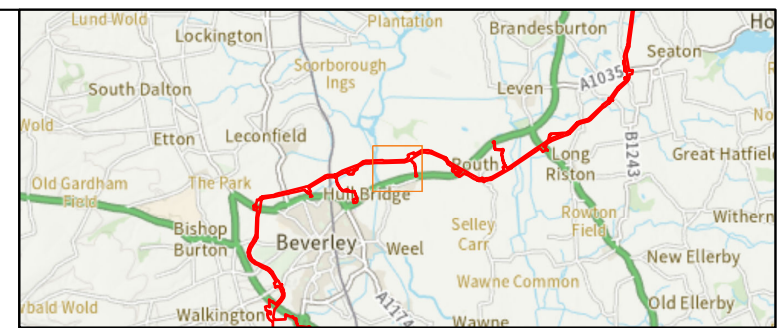
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Appendix F.5.8: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 5, October

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - October	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,500

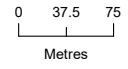




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

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PROJECT TITLE
DOGGER BANK SOUTH

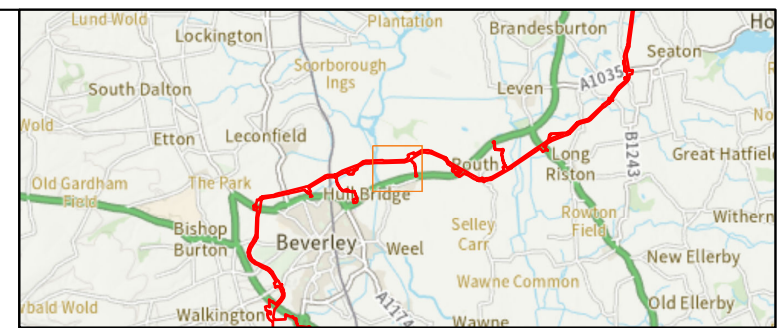
DRAWING TITLE
Appendix F.6.1: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 6, April

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - April	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

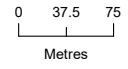




Bat Survey Results

	Onshore Development Area
	Transect route
	Brown long-eared bat
	Common pipistrelle
	Daubenton's bat
	Leisler's bat
	Myotis sp.
	Nathusius' pipistrelle
	Noctule
	Pipistrelle sp.
	Soprano pipistrelle
	Whiskered/Brandt's bat
	Direction of bat commuting, colour dependent on species
	Bat foraging along feature, colour dependent on species
	Bat continuous foraging, colour dependent on species
	Transect - restricted access

Source:
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 Ordnance Survey 0100031673.



PROJECT TITLE
DOGGER BANK SOUTH

DRAWING TITLE
Appendix F.6.2: Dogger Bank South Offshore Wind Farms Bat Surveys Transect 6, May

VER	DATE	REMARKS	Drawn	Checked
3.2	30/04/24	Bat Transect - May	MP	NG

DRAWING NUMBER:
 PeakEcology/Bats/Transect

 ECOLOGICAL CONSULTANTS	Arden House, Deepdale Business Park, Bakewell, Derbyshire, DE45 1GT. www.peakecology.co.uk	DATUM	OSGB
		PROJECTION	BNG
		PLOT SIZE	A3
		SCALE	1:6,000

