The Great Grid Upgrade

Sea Link

Sea Link

Volume 6: Environmental Statement

Document: 6.3.3.2.K Part 3 Kent Chapter 2 Appendix 3.2.K Bat Tree Survey Report

Planning Inspectorate Reference: EN020026

Version: A March 2025

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)



Page intentionally blank

Contents

1.	Bat Tree Survey Report	1
1.1	Introduction	1
1.2	Bat Legislation, Policy and Guidance	2
1.3	Methodology	4
1.4	Results	6
1.5	Discussion	9
Refe	erences	11
Ann	ex 2.K.1 Survey Dates and Weather Conditions	12
Ann	ex 2.K.2 Summary of results from Extended Phase 1 survey data	search 13
	Table of Tables	
	Table 1.1 Granted EPSML licenses within 5 km of Kent Onshore Scheme Order Limits Table 1.2 Tree DBW results Table 1.3 Tree GLTA results Table A.1 Survey dates and weather conditions Table A.2 Summary of data search records for bat species.	6 8 9 12 13

1. Bat Tree Survey Report

1.1 Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.
- The purpose of this appendix is to document the methods and results of preliminary bat roost assessments carried out within the Kent Onshore Scheme Order Limits.
- The baseline findings of this report provide information on any potential ecological constraints associated with bats for incorporation into **Application Document 6.2.3.2**Part 3 Kent Chapter 2 Ecology and Biodiversity for the Kent Onshore Scheme.
- Details of avoidance, mitigation, compensation and enhancement measures relating to bats are not included in this report but are instead reported within **Application**Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity.
- 1.1.5 This appendix should be read in conjunction with the following figures:
 - Application Document 6.4.3.2.K.1 Kent Bat Roost Potential Assessment Locations

Scope

- This report details the results of the preliminary bat roost assessment (PRA) surveys of the Kent Onshore Scheme Order Limits undertaken in June 2023 and April 2024.
- 1.1.7 This report includes the following information:
 - relevant legislation and policy;
 - methodologies for desk and field-based assessments undertaken during April 2024:
 - limitations to the surveys and assessments undertaken;
 - assessment and survey results; and
 - the approach for determining the follow up recommendations based on potential roost features (PRFs) recorded during the assessments.

Assessment objectives

- 1.1.8 The objective of the PRA, and this document was to:
 - record the descriptions of PRFs present on suitable trees and structures within the Kent Onshore Scheme Order Limits including location, tree species, structure type, feature type, need for further climbing inspection and whether the tree is safe to climb (as defined in Section 1.4); and
 - report the results of the PRA.

Survey Area

- 1.1.9 The Kent Onshore Scheme Order Limits comprises four core locations:
 - Pegwell Bay landfall or landfall/beach area. This is predominantly a shingle beach with a littoral zone confined to mobile shingle (hereafter referred to as 'the landfall/beach area');
 - the Eastern landfall route between the Proposed Minster Convertor Station and Minster Substation to the west and landfall area to the east:
 - the Proposed Minster Converter Station and Substation; and
 - Overhead lines (OHL) route corridor to the southwest of Proposed Minster Converter station.

1.2 Bat Legislation, Policy and Guidance

Conservation of Habitats and Species Regulations 2017 (as amended) and Wildlife and Countryside Act 1981 (as amended)

- All UK native bat species and their roosts (whether bats are present or not) are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2024) and under the Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981). Taken together, under this legislation it is an offence to:
 - deliberately, intentionally or recklessly capture, injure or kill a bat;
 - damage/destroy a breeding site or resting place of a bat (this is an offence whether the act is deliberate or not);
 - deliberately, intentionally or recklessly disturb a bat; or
 - intentionally or recklessly obstruct access to any structure which a bat uses for shelter or protection.
- A bat roost is defined as "any structure or place, which is used for shelter or protection" or a "breeding site or resting place". Because bats commonly use the same roosts at particular times of the year after periods of absence, the roost is protected whether or not bats are resident.
- Given the above legislation the potential presence of bats at a site represents a material consideration in the planning process. Even where planning permission is not required there is still a legal responsibility placed on the developer to ensure that a Natural

England license is obtained to cover any works that have the potential to result in an offence under the above legislation.

Natural Environment and Rural Communities Act 2006 (as amended)

- In addition to the above legislation, seven bat species are listed as being Species of Principal Importance (SPI) for conservation in England under Section 41 (S41) of the Natural Environment and Rural Communities Act 2006 (HM Government, 2006). These species are of material consideration during the planning process.
- This list includes namely, the barbastelle bat (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), noctule bat (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*), greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe bat (*Rhinolophus hipposideros*).

Regional/Local Planning and Guidance

Kent Local Wildlife Site selection criteria

In Kent, Local Wildlife Sites (LWS) and County Wildlife Sites (CWS) are selected based on certain selection criteria (Kent Wildlife Trust, 2022). These guidelines state that the criteria for selection of LWS applies to bats as follows:

"A set of criteria for selection of Local Wildlife Sites on the basis of their bat fauna has been drawn up by the Kent Bat Group (KBG), as the relevant expert organisation. These include:

- A site boundary should take in the most likely commuting and foraging habitats within 2 km of a roost site, or the most likely commuting routes around a known foraging site within a buffer of 2 km. This means a site designated for bats may include a variety of habitats for example pasture, parkland, woodland, open or running water, wetland, hedgerows etc. as bats require a diversity of invertebrate food sources and areas in which to feed and through which to commute.
- 'Roosts' include maternity, pre/post maternity, hibernation and male roosts. Of particular importance are roost sites of multi-species occupancy and feeding sites targeted by several species.
- As Kent Bat Group already has personal contact with owners of roosts, and details are often confidential, it is important that any approach or request regarding designation of such sites is made through KBG."
- 1.2.7 The guidelines include the following types of site that would be considered:
 - "Maternity roost sites (excluding domestic properties) and the vital flight and commuting routes and priority feeding areas attached to such roosts
 - Any structures such as tunnels, dene holes, bridges, icehouses, cellars, ancient buildings and fortifications etc. which are used as winter roosts
 - Sites which have been recorded as swarming sites
 - Regular feeding and foraging sites for an assemblage of four species or more."

Following the assessment of sites against primary and secondary habitat criteria, sites are considered against appropriate specific habitat criteria. Qualifying sites will have at least one of the attributes.

1.3 Methodology

Zone of Influence

- The potential impact(s) of a development are not always limited to the boundaries of the site concerned. A development may also have the potential to result in impacts upon ecologically important sites, habitats or species that are located beyond the site boundaries.
- The area over which a development may impact ecologically important features is known as the Zone of Influence (ZOI). The ZOI is determined by the source/type of impact, the potential pathway(s) for that impact and the location and sensitivity of the ecologically important feature(s) beyond the boundary. The potential ZOI of a project in relation to roosting bats is used to determine the extent of the PRA Survey and study areas.
- 1.3.3 The ZOI was used to establish the required extent of the PRA survey, which included all suitable on-site habitats and a 10 m buffer.

Desk Study

- A desk top search using the Multi-Agency Geographic Information for the Countryside (MAGIC) website (DEFRA, 2024) was conducted to view any granted European Protected Species Mitigation Licences (EPSML) within 5 km of the Kent Onshore Scheme Order Limits.
- Records for bats within 5 km of the Kent Onshore Scheme Order Limits were obtained from Kent and Medway Biological Records Centre in June 2022 (updated October 2024).
- The area for which the above collection of background information encompasses (e.g. the Kent Onshore Scheme Order Limits and a 5 km buffer around this) will hereafter be referred to as the study area.

Field Survey Method

Daytime bat walkover

An initial 'Daytime Bat Walkover' (DBW) to assess the suitability of habitats within the Kent Onshore Scheme Order Limits and a 10m buffer to support roosting bats, foraging bats and bat flight lines was undertaken 26-28 June 2023 in accordance with the Bat Conservation Trust survey guidelines in place at the time (Collins, 2016). These surveys are still considered to be in line with the current guidelines, with trees reassessed using collected data as likely PRF-I or likely PRF-M in accordance with current guidelines (Collins, 2023). Further DBW and Ground Level Tree Assessment (GLTA) surveys were conducted 9-10 April 2024 in accordance with the current Bat Conservation Trust (BCT) survey guidelines (Collins, 2023). Survey dates and weather conditions are provided in (Annex 2.K.1).

The Kent Onshore Scheme Order Limits was walked by suitably experienced ecologists, who identified and recorded any structures, trees and other features that could be suitable for bats to roost in. A high-level ground assessment of trees was completed, with the suitability of trees categorised as 'none' (i.e. no potential roost features (PRF) or highly unlikely to be any), 'FAR' (further assessment required) or 'PRF' (at least one PRF present).

Ground level tree assessment

- Trees were within the Kent Onshore Scheme Order Limits which were categorised as FAR or PRF during the DBW, a GLTA was completed where possible. The GLTA was completed by two ecologists during the same period as the DBW.
- The GLTA was completed in accordance with the current BCT survey guidelines (Collins, 2023) and BS 8596:2015 Surveying for bats in trees and woodland (British Standards Institute, 2015). Trees were examined from the ground using close focusing binoculars and a high-powered torch (Cluson Clulite) for any visible features such as loose bark, cavities and ivy that could be utilised by bats. Trees were also checked for any signs of bats visible from the ground such as droppings, scratch marks, staining and feeding remains. Based on this inspection, each tree was then classified using a scale of likely none (no PRF), likely PRF-I (i.e. suitable for individual or small numbers of bats), or likely PRF-M (i.e. suitable for multiple bats, so could potentially support a maternity roost).
- The GLTA aimed to determine the requirement for PRF aerial inspection surveys. For the purpose of this report, only trees assessed as FAR or that support PRFs are discussed. Natural England have determined that the difference between PRF-I and PRF-M cannot be determined from a GLTA alone; therefore, the terms "likely PRF-I" and "likely PRF-M" have been used. Trees with no PRFs are omitted.
- 1.3.12 The survey included a 10 m buffer from the Kent Onshore Scheme Order Limits.

Limitations

Desk study

The aim of a desk study is to help characterise the baseline context of the site and provide valuable background information that would not be captured by a single site survey alone. Information obtained during a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitat or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Kent Onshore Scheme Order Limits.

Field survey

An ecological survey represents a 'snapshot' in time of the ecological condition of a site. The extent and quality of habitats present, and their suitability for protected and priority species, can change substantially throughout both the course of a year and between years. However, any seasonal limitations to the appraisal are clearly identified in this report, and the lifespan of this appraisal section of this report at least partially addresses

the potential for changes between years. Therefore, this standard limitation is addressed as far as is reasonably possible.

Lifespan of the Appraisal

It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason and in accordance with current guidance, the field survey data detailed in this report are valid for a period of two years from the date of the survey (CIEEM, 2019). After this date, updated surveys may be required, and advice should be sought from an appropriately qualified ecologist to determine the survey scope and methods.

1.4 Results

Desk Study

- There are 79 recent records of bats within the study area, including records for serotine (*Eptesicus serotinus*), Daubenton's (*Myotis daubentonii*), Natterer's (*Myotis nattereri*), Leisler's (*Nyctalus leisleri*), noctule, Nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle, and brown long-eared bat. The closest of these records is of noctule, brown long-eared bat and soprano pipistrelle in 2021, 70 m from the Kent Onshore Scheme Order Limits. Summarised results from the desk study are in Annex 2.K.2.
- A number of land features identified through aerial imagery were considered suitable to support bat roosts including woodland, trees and structures. Woodland, hedgerows, grassland, arable margins and water features (static and running), including marginal habitats such as reedbed, are all suitable bat foraging sites. Further details on the suitability of the Kent Onshore Scheme Order Limits for foraging and bat flight lines are available in Appendix 3.2.L Nighttime Bat Walkover and Static Detector Report.
- Desk study data from MAGIC (DEFRA, 2024) showed that there have been five granted EPSMLs within 5 km of the Kent Onshore Scheme Order Limits in relation to bats. Details of these are provided in Table 1.1.

Table 1.1 Granted EPSML licenses within 5 km of Kent Onshore Scheme Order Limits

License Case Reference	Approximate Distance to Kent Onshore order limits	Species	Start Date	End Date	Permissible Activities
EPSM2013- 6784	2.3 km south of A256 compound	Common pipisrelle, soprano pipistrelle, brown long- eared bat	10/12/2013	30/09/2016	Destruction of a resting place

License Case Reference	Approximate Distance to Kent Onshore order limits	Species	Start Date	End Date	Permissible Activities
2019- 40666- EPS-MIT	2.6 km south of A256 compound	Brown long- eared bat	06/06/2019	06/06/2029	Destruction of a resting place
2017- 31456- EPS-MIT	3.5 km south of A256 compound	Soprano pipistrelle	28/09/2017	31/10/2018	Destruction of a resting place
EPSM2010- 2301	875 m southwest	Common pipisrelle, soprano pipistrelle, Nathusius' pipistrelle brown longeared bat	02/08/2011	31/10/2012	Destruction of a resting place
2015- 16862- EPS-NSIP2	625 m southwest	Common pipisrelle, soprano pipistrelle, Natterer's bat, Daubenton's bat, brown longeared bat	16/11/2017	30/11/2022	Destruction of a resting place

Field Survey

- 1.4.4 The results of the DBW and GLTA surveys are described below.
- A total of eight trees within the survey area were assessed as supporting PRFs during the 2024 DBW surveys. The results of the DBW survey are described in Table 1.2.
- No structures were identified within the survey area which were assessed as having bat roost potential.

Table 1.2 Tree DBW results

Tree Reference	Tree Species	Land Parcel	Daytime walkover (FAR/PRF)	Scoped in for further assessment	Tree Description
332 –1	Oak (Quercus robur)	232	FAR	Y (Access route in close proximity)	Tree in hedge, with dense ivy
244 – 1	Oak	244	FAR	Y (Access route in close proximity)	Tree in hedge, with dense ivy
244 – 2	Oak	244	FAR	Y (Access route in close proximity)	Tree in hedge, with dense ivy
374-1	Eucalyptus	374	FAR	No (No impacts expected (trenchless cable installation area)	Dead tree, likely PRF-I
399 – 1	Oak	399	FAR	Y (Access route in close proximity)	Tree in hedge, with dense ivy
ML-1	Hawthorn	Mitigation Land (A256)	FAR	Y (Access route in close proximity)	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected
ML-2	Hawthorn	Mitigation Land (A256)	FAR	Y (Access route in close proximity)	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected
ML-3	Hawthorn	Mitigation Land (A256)	FAR	Y (Access route in close proximity)	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected

Only trees classified as FAR and PRF are included in the Table 1.2, all trees classified as 'none' are excluded.

Figures of the locations of each assessed tree are provided in **Application Document 6.4.3.2.K.1 Kent Bat Roost Potential Assessment Locations.**

The potentially impacted trees were all classified as likely PRF-I (i.e. suitable for small numbers of bats). No trees were identified as likely PRF-M (i.e. suitable for multiple bats, so could support a maternity roost). No trees were considered suitable to support hibernating bats. Table 1.3 summarises the survey results.

Table 1.3 Tree GLTA results

Reference Name	Tree Species	Land Parcel	Ground Level Tree Assessment (Likely PRF- I/Likely PRF- M)	Tree Description
332 –1	Oak	232	Likely PRF-I	Tree in hedge, with dense ivy No signs of bat (droppings etc) detected
244 – 1	Oak	244	Likely PRF-I	Tree in hedge, with dense ivy No signs of bat (droppings etc) detected
244 – 2	Oak	244	Likely PRF-I	Tree in hedge, with dense ivy No signs of bat (droppings etc) detected
399 – 1	Oak	399	Likely PRF-I	Tree in hedge, with dense ivy No signs of bat (droppings etc) detected
ML-1	Hawthorn	Mitigation Land (A256)	Likely PRF-I	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected
ML-2	Hawthorn	Mitigation Land (A256)	Likely PRF-I	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected
ML-3	Hawthorn	Mitigation Land (A256)	Likely PRF-I	Tree in field margin in dense bramble with dense ivy No signs of bat (droppings etc) detected

1.5 Discussion

Many locations where there were trees or structures that could support PRFs were located towards the inland cable route locations rather than the open landscape of the coastal areas of the Kent Onshore Scheme Order Limits.

- None of the eight trees identified as supporting PRFs are scheduled for removal as a result of the Kent Onshore Scheme; therefore, aerial inspection of these trees was not conducted.
- One of the eight trees will not be impacted as this is in an area where trenchless methods of cable installation will be deployed. This will be well below the root depth of the trees. The remaining four trees are along proposed access routes and may be impacted if works to the route are undertaken (root damage) or by heavy machinery as it passes (foliage or root damage).
- Overall, there is limited roosting potential for bats within and immediately adjacent to the Kent Onshore Scheme Order Limits, although habitat suitable for foraging and flight lines are present. Woodland, hedgerows, grassland, arable margins and water features (static and running), including marginal habitats such as reedbed, are all suitable for bat foraging and flight lines. These are discussed in Appendix 3.2.L Nighttime Bat Walkover and Static Detector Report.

References

- British Standards Institute. (2015, October 31). Surveying for bats in trees and woodland. Retrieved from bsu.knwledge: https://knowledge.bsigroup.com/products/surveying-for-bats-in-trees-and-woodland-guide?version=standard
- CIEEM. (2019). Guidelines for ecological impact assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal. Version 1.1 (Updated September 2019). Chartered Institute of Ecology and Environmental Management.
- Collins, J. (2016). Bat Surveys for Professional Ecologists: Good practice guideline (3rd Edn). London: The Bat Conservation Trust.
- Collins, J. (2023). Bat Surveys for Professional Ecologists Good Practice Guidelines (4th edn.). London: Bat Conservtion Trust.
- DEFRA. (2024, 07 17). Multi-agency Geographic Information for the Countryside (MAGIC) Interactive Map.

 Department for Environment, Food and Rural Affairs. Available from: http://magic.defra.gov.uk [Accessed: 26/06/2023]. Retrieved from MAGIC: https://magic.defra.gov.uk/MagicMap.aspx
- HM Government. (1981). *Wildlife and Countryside Act 1981*. Retrieved July 11, 2024, from Legislation.gov.uk: https://www.legislation.gov.uk/ukpga/1981/69/contents
- HM Government. (2006). *Natural Environment and Rural Communities Act 2006*. Retrieved July 11, 2024, from Legislation.gov.uk: https://www.legislation.gov.uk/ukpga/2006/16/contents
- HM Government. (2024, 07 17). *The Conservation of Habitats and Species Regulations 2017.* Retrieved from Legislation.gov.uk: https://www.legislation.gov.uk/uksi/2017/1012/contents/made
- Kent Wildlife Trust. (2022, 12). Local Wildlife Sites in Kent: Selection and Delineation. Retrieved from Kent Wildlife Trust: https://www.kentwildlifetrust.org.uk/sites/default/files/2024-07/Local%20Wildlife%20Sites%20in%20Kent%20-%20Selection%20and%20Delineation%20v1.8%20Dec22 0.pdf

National Grid | March 2025 | Part 3 Kent Chapter 2 Appendix 3.2.K | Sea Link

Annex 2.K.1 Survey Dates and Weather Conditions

Table A.1 Survey dates and weather conditions

Date (Visit no.)	Weather Conditions
26/06/2023	18°C, Partial cloud, light breeze south-westerly, dry.
27/06/2023	20°C, Overcast, light breeze southeasterley, showers
28/06/2023	21°C, Overcast, light breeze southeasterley, showers
09/04/2024	12°C, Overcast, strong wind southeasterley, rain
10/04/2024	11°C, Overcast, strong breeze, dry, recent rain
13/11/2024	7°C, Overcast, light breeze, dry, recent rain

Annex 2.K.2 Summary of results from Extended Phase 1 survey data search

Table A.2 Summary of data search records for bat species.

Common name	Scientific name	Legally protecte d species	Species of principal importance	Other notabl e specie s		Present/ potentially present in wider Zone of Influence	Latest record	Closest record
Serotine	Eptesicus serotinus	Υ	-	Υ	-	Υ	600 m, SE, 2019	440 m, NE, 2016
Daubenton's bat	Myotis daubentonii	Υ	-	-	-	Υ	435 m, SW, 2016	435 m, SW, 2016
Natterer's Bat	Myotis nattereri	Υ	-	Υ	-	Υ	180 m, NE, 2020	180 m, NE, 2020
Leisler's bat	Nyctalus leisleri	Υ	-	-	-	Υ	435 m, SW, 2016	435 m, SW, 2016
Noctule bat	Nyctalus noctula	Υ	Υ	-	-	Υ	70 m, W, 2021	70 m, W, 2021
Brown long- eared bat	Plecotus auritus	Υ	Υ	-	-	Υ	70 m, W, 2021	70 m, W, 2021
Common pipistrelle	Pipistrellus pipistrellus	Υ	-	-	-	Υ	80 m, NW, 2022	80 m, NW, 2022
Soprano pipistrelle	Pipistrellus pygmaeus	Υ	-	-	-	Υ	360 m, NW, 2022	70 m, W, 2021
Nathusius' pipistrelle	Pipistrellus nathusii	Υ	-	-	-	Υ	600 m, W, 2019	435 m, SW, 2016

National Grid plc

National Grid House,

Warwick Technology Park,

Gallows Hill, Warwick.

CV34 6DA United Kingdom

Registered in England and Wales

No. 4031152

nationalgrid.com