



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Bats - Alderford Common SSSI and Swannington Upgate Common SSSI Technical Note

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Glossary of Acronyms

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| CWS | Country Wildlife Sites |
| DCO | Development Consent Order |
| DEL | Dudgeon Extension Limited |
| DEP | Dudgeon Offshore Wind Farm Extension Project |
| ETG | Expert Topic Group |
| HDD | Horizontal Directional Drilling |
| km | Kilometre |
| SAC | Special Area of Conservation |
| SEL | Scira Extension Limited |
| SEP | Sheringham Offshore Wind Farm Extension Project |
| SSSI | Site of Special Scientific Interest |

Glossary of Terms

| | |
|---|---|
| Dudgeon Offshore Wind Farm Extension Project (DEP) | The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure. |
| Order Limits | The area subject to the application for development consent, including all permanent and temporary works for SEP and DEP. |
| Sheringham Shoal Offshore Wind Farm Extension Project (SEP) | The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure. |
| The Applicant | Equinor New Energy Limited. As the owners of SEP and DEP, Scira Extension Limited and Dudgeon Extension Limited are the named undertakers that have the benefit of the DCO. References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP. |

BATS – ALDERFORD COMMON SSSI AND SWANNINGTON UGATE COMMON SSSI TECHNICAL NOTE

1 Introduction

1. In their Relevant Representations, Natural England [RR-063] and the Norfolk Wildlife Trust [RR-068] have queried the construction impacts of SEP and DEP and any associated habitat severance on bats in the area around Attlebridge and Swannington.
2. The approach to bat activity surveys was agreed during the Onshore Ecology and Ornithology Expert Topic Group (ETG) meetings in January and December 2020. Minutes of the ETG meeting are presented in **Consultation Report Appendix 1** [APP-030].
3. **ES Chapter 20 Onshore Ecology and Ornithology** [APP-216, Section 20.6.1.12] presents the impact assessment relating bats and their foraging and commuting habitats. The survey bat activity survey methodology and results are presented in **ES Appendix 20.3 - Bat Activity Survey Report** [APP-216].
4. This Technical Note presents the Applicant's comments in relation to concerns raised by Natural England and Norfolk Wildlife Trust.

2 Response to Stakeholder Concerns

5. Where the Order Limits pass to the east of Swannington and to the south of Attlebridge, it intersects areas of grassland, woodland, ditches, hedgerows and streams, including the River Wensum at Attlebridge which is designated as a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). The habitats surrounding the SAC and SSSI are designated as County Wildlife Sites (CWS).
6. These habitats at Swannington and Attlebridge were subject to bat activity surveys completed at pre-application stage in 2020 and 2021. These areas were selected for inclusion within the bat survey scope because the habitats were considered to present relatively optimal conditions for bat activity in comparison to much of the rest of the Order Limits.
7. The section of the Order Limits which runs between the aforementioned areas of habitat at Swannington and Attlebridge, passes through an entirely arable landscape with field boundaries marked by hedgerows, field margins and occasional trees. This arable habitat was not surveyed for bats because it was considered relatively unlikely to be a key habitat for bat species in terms of its foraging and/or commuting value.
8. The same approach was taken elsewhere throughout the Order Limits, where sections of the route passing through arable habitat were not subject to bat activity surveys (bat roost surveys were completed separately and considered different factors - i.e. the presence of features such as trees with roost potential).
9. The section of the Order Limits between Swannington and Attlebridge (approximately 2.7km in length) passes between two SSSIs as shown in **Figure 1**. Alderford Common SSSI is located approximately 180m west of the Order Limits at

its closest point, and Swannington Upgate Common SSSI is located approximately 500m to the south-east. Stakeholders have highlighted concerns that the installation of the onshore grid connection cables between these SSSIs could sever important habitat connections for bats flying between them for foraging, wider commuting and roosting, including within maternity roosts and breeding sites.

10. **Error! Reference source not found.** shows that the majority of what are considered to be the key habitat connections in the area between Swannington and Attlebridge would be retained through the use of trenchless techniques, e.g. Horizontal Directional Drilling (HDD). This includes the roadside hedgerows bordering Upgate and Reepham Road, plus Marriott's Way CWS, which is known to function as an important wildlife corridor, including for bats.
11. There are five hedgerows and two field margins in the area between Swannington and Attlebridge which have the potential for part removal or breach to facilitate construction works. This includes a hedgerow bordering a field of pig pens to the east of Swannington, two hedgerows to the north of Reepham Road, one hedgerow to the north of Marriott's Way, a hedgerow and field margin bordering Felthorpe Road, and part of a hedgerow bordering the proposed construction compound east of Attlebridge (bordering Old Fakenham Road). However, the hedgerows at Swannington and bordering Felthorpe Road and Old Fakenham Road are not expected to function in a connective capacity for bats flying between the two SSSIs, given the distance and poor connectivity of these particular features from the SSSIs as shown on the map.
12. The two hedgerows north of Reepham Road, however, may support some connective bat flight activity between the SSSIs. This issue would be examined through further surveys of all seven of these crossing points at pre-construction stage (assuming they are confirmed as needing to be partially removed/breached at that stage) to ensure that the risks of habitat severance are appropriately considered. Details of pre-construction ecological surveys likely to be required are presented in the **Outline Ecological Management Plan (Revision B)** [document reference 9.19, Appendix 1] and secured via Requirement 13 (Ecological Management Plan) of the **draft Development Consent Order (DCO)** (Revision C) [document reference 3.1].
13. Where hedgerows are found to be important for bats, the Applicant would seek to implement mitigation to ameliorate the effects of habitat severance. This may include timing works so that the hedgerow breach is in effect during bat dormancy periods (broadly from late October to late March). There will also be a general restriction on night working in 'open cut' sections of the route (i.e. all those other than HDD sections) and night lighting will also be avoided wherever possible, and sensitively designed where essential. This same approach of further surveys of potentially important connective features which are at risk of being removed or impacted during construction will be adopted across the Order Limits, not just in the area around Swannington and Attlebridge.
14. In addition, the Applicant will micro-site the precise construction footprint where possible to avoid features of comparatively high ecological value. In the context of hedgerows, this means that each hedgerow to be breached will be surveyed by an ecologist at pre-construction stage and the 'poorest' section would be removed, meaning the higher value sections can be retained. Wherever possible, existing

gaps in hedgerows will be used as the crossing point, or sections of the hedgerow in relatively poor condition (with unhealthy shrubs, non-native shrubs, poorly managed shrubs, etc.) would be removed. It is therefore possible that for a number of hedgerow crossings throughout the Order Limits, the impact of hedgerow removal can be partly (or even fully in the case that existing gaps can accommodate the entire crossing point) mitigated through this micro-siting approach; this will also mitigate impacts to wildlife using hedgerows such as bats. The scope for ecological surveys is presented in the **Outline Ecological Management Plan (Revision B)** [document reference 9.19, Appendix 1],

15. There is also concern over the possible presence of a barbastelle colony (which may be of national or possibly international importance) which is currently the subject of a study being completed by Wild Wings Ecology in the area around the River Wensum. It is understood that the woodlands around the Wensum valley are the key habitat for the barbastelle colony, although precisely which woodlands are important for barbastelles and how they function is not yet fully published. However, SEP and DEP have been able to ensure woodland habitat in the vicinity of the River Wensum will be avoided by committing to HDD sections that intersect woodland habitat.
16. The particular sections of the Order Limits between Swannington and Attlebridge are not thought to be amongst the key foraging, commuting or roosting features for the barbastelle colony, although the forthcoming study will clarify this. Should the study reveal any features of importance within this area or elsewhere within and around the Order Limits, that information would be factored into the design of pre-construction surveys to ensure impacts are appropriately considered and mitigated. Details of proposed pre-construction ecological surveys are presented in the **Outline Code of Construction Practice (Revision B)** [document reference 9.17, Appendix 1].
17. In conclusion, the majority of what are considered to be the key habitat connections in the area between Swannington and Attlebridge would be retained through the use of trenchless techniques, e.g. HDD. This includes woodland habitat in the vicinity of the River Wensum. Further pre-construction ecological surveys will be undertaken to ensure that, where hedgerows are required to be partially removed/breached, the risks of habitat severance are appropriately considered. Micro-siting will be undertaken where possible to avoid features of comparatively high ecological value and where hedgerows are found to be important for bats, the Applicant would seek to implement mitigation to ameliorate the effects of habitat severance.

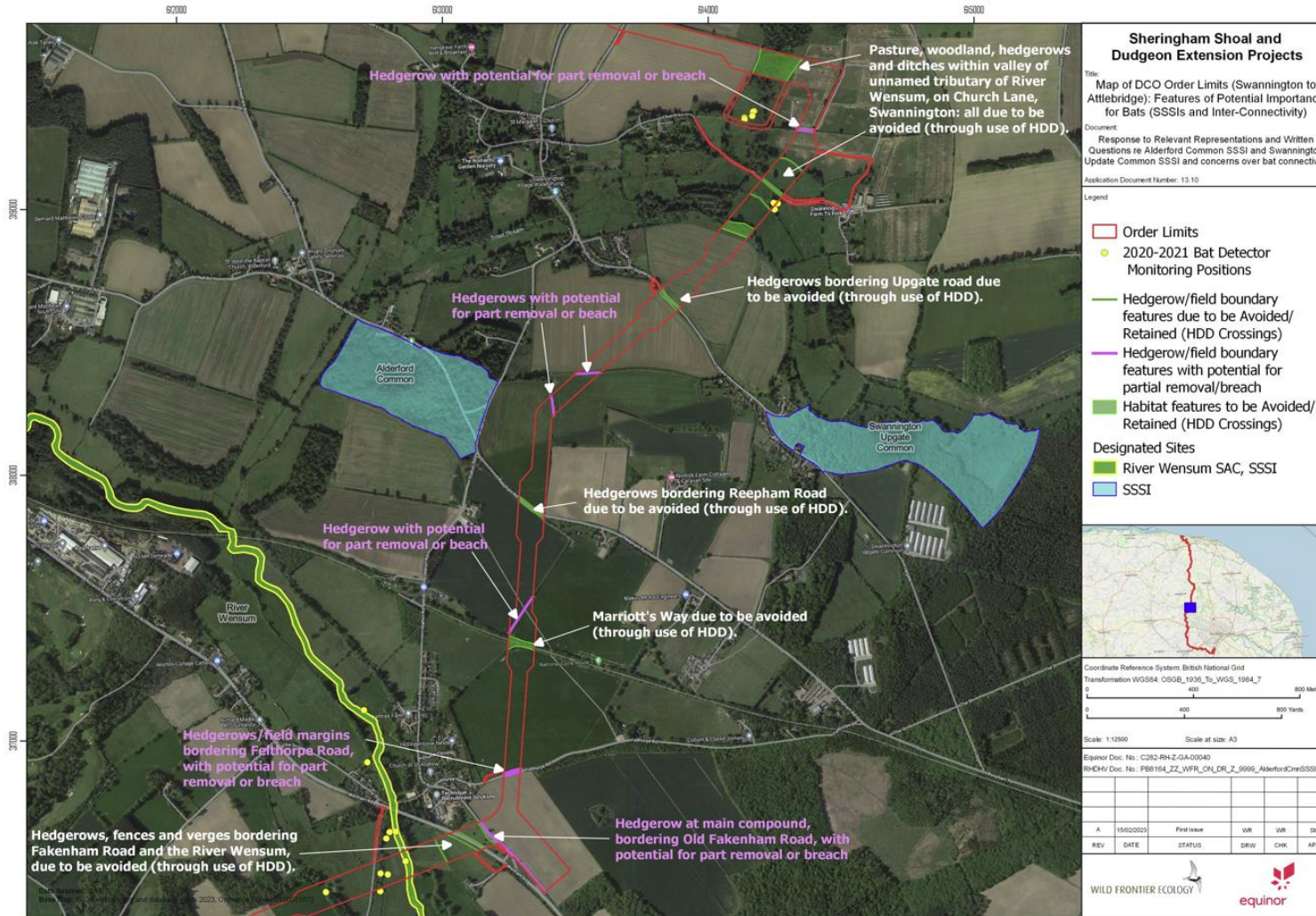


Figure 1 Map of DCO Order Limits (Swannington to Attlebridge): Features of Potential Importance for Bats (SSSIs and interconnectivity)