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AWEL Y MÔR OFFSHORE WIND FARM

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1.0 Introduction

Awel y Môr Offshore Wind Farm (AyM) is a Nationally Significant Infrastructure Project (NSIP). An Environmental Impact Assessment (EIA) is being undertaken and an Environmental Statement (ES) will be provided as part of a Development Consent Order (DCO) application under the Planning Act 2008.

SLR Consulting was commissioned by GoBe Consultants, on behalf of Awel y Môr Offshore Wind Ltd (The Applicant), in May 2020 to undertake the onshore ecological work necessary to inform the EIA. This report provides details of the badger *Meles meles* survey undertaken between August 2020 and August 2021. **Due to the risk of badger persecution, details of sett locations are not included in this publicly accessible report.** A separate confidential report has been prepared for circulation to key consultees and stakeholders which contains full results.

As the AyM project progresses, the emerging scheme design will continue to be refined and so the precise locations and final extent of the proposed scheme are subject to change. Therefore, the scheme details presented in this report may vary from those that are ultimately presented within the ES, but the survey area includes all areas currently under consideration at the time of survey.

1.1 Background

An EIA Scoping Report was prepared in accordance with Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and Regulation 6 of the Marine Works (Environmental Impact Assessment) Regulations 2007. The EIA Scoping Report was submitted to the Planning Inspectorate (PINS) in June 2020. Within the EIA Scoping Report, full details were provided as to the proposed approach for ecological survey and assessment. An Scoping Opinion was provided by PINS in response to the EIA Scoping Report, in July 2020. Comments made in the Scoping Opinion have been taken into account within this report, where relevant. Both documents are available at the PINS website¹; the EIA Scoping Report and EIA Scoping Opinion content is not repeated here, and readers should refer to the original documents for details.

A Preliminary Ecological Appraisal (PEA) was subsequently carried out during the period July to September 2020 for three landfall locations, cable route corridors and substation locations that were under consideration by The Applicant at that time. This was informed by additional desk-based study and initial habitat survey, based on interpretation of aerial imagery and ground-based survey, where access was possible. Findings were presented in a PEA² report, submitted to the AyM EIA Evidence Plan Expert Topic Group (which includes Natural Resources Wales (NRW), Denbighshire County Council (DCC), the Royal Society for the Protection of Birds (RSPB) and North Wales Wildlife Trust (NWWT)), in February 2021 for information and comment. The PEA report included detailed survey proposals for badgers.

In line with the recommendations in the PEA report and following discussion and agreement of the final survey scope during an ETG meeting on 26th February 2021, the badger surveys have since been completed.

1.2 Survey Area

In accordance with the EIA Scoping Report and PEA report, the badger survey comprised a search for the presence of active badger setts and signs for the Draft Order Limits (DOL) that were presented at Statutory Consultation, plus surrounding 30m. In practice, the survey for badgers was undertaken in tandem with the habitat survey and so extended up to 100m.

¹<https://infrastructure.planninginspectorate.gov.uk/projects/wales/awel-y-mor-offshore-wind-farm/?ipcsection=docs>

² For a copy of the PEA refer to AyM Offshore Windfarm Environmental Statement Volume 5, Annex 5.1.

Within this report the following terms are used:

- Study Area: This is the 2km zone around the DOL that were presented at Statutory Consultation.
- Survey Area: Within the DOL that were presented at Statutory Consultation, plus the surrounding area that is within 100 m (i.e. 100 m either side of the onshore export cable corridor (ECC) and to all sides of any other infrastructure or works areas such as Temporary Construction Compounds (TCCs) and access tracks). This includes all areas landward of Mean High Water Springs (MHWS).
- Areas other than these are specifically described.

1.3 Purpose of this Report

This report presents the findings of the badger survey and seeks to establish baseline conditions for the species. The assessment of impacts resulting from the onshore elements of AyM is beyond the scope of this report and is covered in the Onshore Biodiversity and Nature Conservation chapter of the ES.

The main objectives of the work were to determine:

- the presence/absence of badger setts within 30m of the DOL that were presented at Statutory Consultation;
- if any setts were in active current use; and
- where possible, the likely sett category (main, annex, subsidiary or outlier; these terms are explained in Section 2.2).

1.4 Evidence of Technical Competence and Experience

The badger survey was primarily undertaken by Jess Colebrook, a Principal Ecologist at SLR Consulting with over 20 years' experience as a professional ecologist. Jess is a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM). Jess is leading the onshore ecological work necessary to inform the EIA for the AyM project.

In addition, all ecological surveyors employed on the project maintained a watching brief for signs of badgers during other surveys. Badger records were also therefore gathered by Liz Probert, Emma Clarke and Shannon Davies. Liz is a Senior Ecologist with 9 years' professional experience and Emma and Shannon are both Senior Field Ecologists with 3 years' professional experience. All work for SLR and are Qualifying members of CIEEM.

This report has been authored by Jess Colebrook. Additional technical support and Quality Assurance review has been provided by Duncan Watson, a Technical Director at SLR Consulting with over 23 years' experience as a professional ecologist. Duncan is a Chartered Environmentalist (CEnv) and a full member of CIEEM (MCIEEM).

2.0 Methodology

2.1 Desk Study

A desk-based study for protected species records has been undertaken to identify sources of pre-existing ecological data of relevance, that could inform the EIA; this is reported within Table 2-1 of the PEA report. Subsequent to completion of the PEA report, an updated data request was made to Cofnod for records within c.2km of the DOL that were presented at Statutory Consultation and any relevant data received up to 8th September 2021 have been included in this report.

2.2 Field Surveys

The field survey was undertaken in tandem with the habitat survey over a period of 15 days in 2020; specific dates were as follows: 17th – 18th and 26th - 28th August; 8th - 11th, 15th - 18th and 22nd September; and 15th October. Additional survey was undertaken over a period of nine days in 2021 on the following dates: 18th March, 12th – 16th and 29th April, 18th May and 3rd June. Outwith those periods, additional records were made on 17th and 31st August 2021, plus the 21st October 2021.

Surveys followed standard methods³ and included a search for the presence of badger setts and other signs such as dungpits or latrines, paths, prints and hairs. Setts have been classified as being Main, Annex, Subsidiary or Outlier, depending upon their size, relative locations and degree of use. Classification criteria for rural setts are listed in Table 2-1⁴. However, it should be noted that classification relies on professional judgement, as for example, urban setts can have fewer entrances⁵.

Table 2-1
Sett Classification

Sett Type	Definition
Main	At least five holes, often with large spoil heaps and obvious pathways originating from and between sett entrances. Usually active.
Annex	Sett with several holes, connected to a main sett by a clear badger path, normally less than 150m from the main sett. Not used all of the time.
Subsidiary	Usually at least 50m from the main sett with no obvious paths connecting to other setts. Used intermittently.
Outlier	One or two holes. No obvious paths connecting to other setts and only used sporadically. Little spoil outside holes. Often used by other mammals.

Where a sett was found, the location of each entrance was recorded (where practical) and a note made for those which appeared to be in active current use. Further discrimination of activity levels was not considered necessary for the objectives of this study. The terms used to describe activity levels were defined as follows:

³ Scottish Natural Heritage (SNH) (2003). 'Best Practice Guidance - Badger Surveys', Inverness Badger Survey 2003, Commissioned Report No. 096.

⁴ Neal, E. & Cheeseman, C. (1996) Badgers. T & A D Poyser Ltd, London.

⁵ Davison, J. Huck, M., Delahay, R.J. & Roper, T.J. (2008) Urban badger setts: characteristics, patterns of use and management implications. Journal of Zoology 275, 190-200.

- Active current use = badgers directly observed or sett with fresh bedding, spoil, prints or hairs at the entrance.
- Not in active current use = not exhibiting the above features.

It is important to note that the season in which the survey is conducted will have an impact on the interpretation of field signs, as badger activity fluctuates throughout the year. Badgers move between setts within their territories in response to environmental factors such as availability of seasonal food resources, human disturbance, accumulation of parasites, or territoriality. A sett, or a particular entrance may be brought into use at any time. To conclusively ascertain badger presence at a sett at any given time, bait-marking and/or an extended trail-cam survey would typically be the most conclusive method; this has not been deemed necessary to meet the objectives of this study. The reason for this is that none of the recorded setts will be directly affected by the proposed onshore infrastructure, and that for the purpose of impact assessment, it would be presumed that any sett could be brought into active use at any time between the survey and the construction period.

2.3 Limitations

2.3.1 Desk Study

Desk study data are unlikely to be exhaustive, especially in respect of species, and are intended mainly to set a context for the study. It is therefore possible that protected species (in this case badger) not identified during the data search do in fact occur within the study area.

2.3.2 Field Survey

Dense scrub prevented full access to a small proportion of the Survey Area, most notably at an area west of “the Flash”. In such locations additional search effort for signs of badger such as paths, hairs and prints was made at the scrub boundary and it is considered likely that evidence of an inaccessible currently active sett would have been found if present. However, it is possible that inactive setts may have been missed in such areas. This is considered to be a minor constraint to the objectives of this study, since the vast majority of the survey area proved accessible.

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence does not necessarily preclude badgers from being present within an area at a later date; badgers are highly mobile and can move in response to changes in environmental factors.

Nevertheless, given the site context and the types of habitat present, the level of survey is considered to be sufficient to meet the objectives of this report set out in section 1.3.

3.0 Results & Discussion

3.1 Results

3.1.1 Desk Study

Review of the Cofnod data confirms that there are many records of badger within the 2km Study Area, including a total of 117 setts, seven of which are within 30m of the DOL that were presented at Statutory Consultation.

Full details provided by Cofnod of setts within the Study Area are not replicated here but have been used to help evaluate categories applied to the setts encountered during the field survey.

3.1.2 Field Survey

The results of the field survey also recorded setts at seven broad locations including main, subsidiary and outlier setts. Other evidence recorded includes latrines, paths and prints.

3.2 Discussion

Badger is confirmed to occur throughout the Survey Area, with main, subsidiary and outlier setts all recorded. Agricultural fields were found not to support any setts; this is likely due to the lack of cover and degree of disturbance, but also the low-lying nature of much of the area within the Survey Area, where the water table is relatively high for parts of the year.

Badgers' diet is predominantly based upon earthworms, pasture/grassland represents good quality foraging, and is present throughout the Survey Area. Cereal fields – also common in parts of the survey area - may also be used by foraging badgers, but typically represent a poorer food source than pasture.

Badgers live in territorial clans, each clan utilising a range of setts depending on time of year and environmental conditions. This survey did not seek to determine the extent of clan territories. However, based on desk study and field survey information it is considered likely that the Survey Area helps to support at least five clans throughout the year.

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