

Appendix 8-6 - Bird Monitoring Programme





# Bord na Móna

**Derryadd Wind Farm** 

**Bird Monitoring Programme** 



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# 1.0 INTRODUCTION

This Bird Monitoring Programme has been prepared by TOBIN for the proposed Derryadd wind farm, Co. Longford. This document provides a timeframe and monitoring schedule for the bird population of the study area during the Construction and Operation phases of the proposed development.

Breeding and Non-breeding bird surveys were undertaken between the period April 2021 to September 2024, inclusive. This field study was designed to provide accurate information of target species presence (and others) within the area, assure compliance with recommended standard methodologies (e.g. BirdWatch Ireland, 2008; Gilbert *et al.*, 2011; CBS, 2012; Hardey *et al.*, 2013; SNH, 2017) and allow for a comprehensive assessment of potential likely significant effects from the proposed wind farm on ornithological resources. Full details of all bird usage within the study area for the proposed development can be seen in Chapter 8 (Ornithology) of this EIAR. The Key Avian Receptors (KARs) identified for this proposed development (Section 8.8.2.31 of Chapter 8) will be subject to the various proposed bird monitoring measures outlined in this document.

# 1.1 Objectives

Monitoring objectives will include the following:

- To ensure any required pre-commencement/pre-construction phase monitoring is scheduled to ensure any impacts on breeding KARs, are avoided;
- To record usage of the site by birds and interaction with operating turbines during the post-construction/operation phase of the development;
- To monitor short-term and long-term effects on bird populations with a particular emphasis on wintering and breeding birds deemed to be of high conservation concern (Annex I; EU Birds Directive; BoCCI red list species; species classified as KARs – Section 8.8.2.31 of chapter 8 -);
- To undertake collision monitoring and corpse searches for potential bird fatalities as a result of collision with turbine blades;
- Report on findings of post construction monitoring at the end of each monitoring year (Year 1, 2, 3, 5, 10 and 15 of the lifetime of the wind farm).

# 2.0 METHODOLOGY

# 2.1 Pre-Construction Bird Monitoring

It is proposed that construction works will commence outside the bird nesting season (1st of March to 31st of August, inclusive) to avoid the most sensitive time of the year for most bird species with the potential to use the site and its environs.

Any requirement for construction works to run into subsequent breeding seasons following commencement of works will be subject to pre-construction bird surveys in the form of breeding





bird transect surveys, following methodologies outlined in Gilbert *et. al* (2011) and Brown & Shepherd (1993).

This construction phase monitoring, will involve surveying onsite and to a 500m radius of the proposed wind farm site boundary. Monitoring will be undertaken by a suitably qualified ornithologist over a survey period that will include four visits between April and July. If breeding activity is identified, the nest sites will be mapped and no works shall be undertaken within a 500m buffer. No works within the buffer zone shall be permitted until it can be demonstrated that the species is no longer reliant on the nesting areas.

All site staff and subcontractors will be made aware of any restrictions to be imposed by means of a toolbox talk and a map of the 'no-work zone(s)', that will be made available to all construction staff. The restricted area will also be marked off using hazard-tape fencing to alert all personnel on site to the suspension of works within that area.

# 2.2 Post-Construction Bird Monitoring

Post-construction/operation phase monitoring will employ survey methodologies in line with those recommended in SNH (2009). It is proposed to undertake monitoring in the years 1, 2, 3, 5, 10 and 15, following construction. The following surveys will be utilised to monitor birds within the proposed wind farm site, following construction: vantage point surveys, breeding bird surveys, winter surveys, and a programme of regular corpse searching of birds that may potentially collide with operating turbines during the operational phase of the proposed wind farm. The corpse searches will be carried with the use of trained dogs as it increases the process efficiency and detectability (Paula *et al.*, 2011).

#### 2.2.1 Vantage Point surveys (Flight Activity Surveys)

A flight activity survey is to be undertaken using vantage points surveys. Vantage point surveys will be undertaken monthly during operational years 1, 2, 3, 5, 10 and 15 of the lifetime of the wind farm. The methodology for vantage point surveys will follow guidelines outlined by SNH (2009, 2017). Vantage points will be undertaken from the same locations used during preplanning surveys which informed this EIAR, the locations of which can be seen in Chapter 8 (Ornithology).

A report will be submitted to the NPWS and consenting planning authority at the end of each monitoring year

# 2.2.2 Breeding Bird Surveys

A selection of breeding bird surveys (Breeding Raptor, Breeding Woodcock, Breeding Wader and Countryside Bird Survey), which have been outlined in in Chapter 8 (Section 8.2.8), are to be undertaken during operation years 1, 2, 3, 5, 10 and 15. This frequency aims to assess any displacement effects, particularly on breeding birds. A report will be submitted to the NPWS and consenting planning authority at the end of each monitoring year.





#### 2.2.3 Winter Bird Surveys

A selection of winter bird survey (I-WeBS, Winter Transect Surveys, and Hen Harrier Roost Surveys) are to be conducted during operation years 1, 2, 3, 5, 10 and 15 to allow for annual variation and cumulative effects assessment. A report will be submitted to the NPWS and consenting planning authority at the end of each monitoring year.

# 2.2.4 Fatality Monitoring

A comprehensive fatality monitoring programme will be undertaken following SNH (2009) and Duffy and Steward (2008) best-practice methodologies. A trained dog and handler will be used to locate any bird carcasses, and the primary components of the programme will include the following:

- Initial carcass removal trials to establish levels of predator removal of possible fatalities. Carcass removal trials shall be continued for the duration of fatality searches;
- Turbine bird fatality searches, using a trained dog and handler, are to be undertaken in a defined search area (minimum radius hub height) and at intervals selected to effectively sample fatality rates based on carcass removal rates. Surveys will be scheduled to coincide with operation years 1, 2, 3, 5, 10, 15 of the lifetime of the windfarm;
- Recorded fatalities are to be calibrated against known predator removal rates at the site following the initial carcass removal trials, to provide an estimate of overall fatality rates; and
- Results of bird casualties will be incorporated into a report which will be submitted to the NPWS and consenting planning authority at the end of each monitoring year.

#### 3.0 **REPORTING**

A report summarising the findings of the bird monitoring surveys will be submitted to the Planning Authority and NPWS within three months of each monitoring year - the report will be submitted by no later than the 31st of March. This will provide details of the various methods employed, the results of field surveys (vantage point watches, fatality, breeding and wintering and Hen Harrier roost surveys), potential effects/impacts on birds and any recommendations that may inform additional mitigation measures during the operational phase of the proposed wind farm. Maps outlining flight lines of key target species will be produced using GIS software applications to accompany the final report at the end of each monitoring year.





# 4.0 **REFERENCES**

BirdWatch Ireland (2008) *I-WeBS Counter Manual: Guidelines for Irish Wetland Bird Survey counters*. Dublin: BirdWatch Ireland & National Parks and Wildlife Service.

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