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Blessington eGreenway

Response to An Bord Pleanála Request for Further Information on Ecology

Proposals for Monitoring Bird Disturbance at Poulaphouca

Document Details

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1 Introduction

This document has been provided to Wicklow County Council by Flynn Furney Environmental Consultants in order to provide further information as requested by An Bord Pleanála in the consideration of the development of a Greenway at Poulaphouca, Co. Wicklow. This relates to a proposal for the monitoring of potential disturbance to waterbirds, in particular to Greylag Goose *Anser anser* arising from the operational phase of this Greenway.

This document proposes that a programme of monitoring of bird disturbance is carried out at Poulaphouca following the completion of the 'eGreenway.' It is proposed that surveyors carry out a series of 4-hour surveys monitoring Greenway activity types, numbers of users and record disturbance to bird species if occurring. This will be carried out across a calendar year, commencing at the opening of the Greenway to public use.

2 Need for Proposed Monitoring

A wide range of human activity including recreational pursuits and commercial activity may disturb protected bird species (Goodship et al, 2022). It is acknowledged that several forms of human disturbance can occur across the many environments where wild bird species are present during the breeding and non-breeding seasons.

Human disturbance impacts can arise from varied events. These may be as simple as dog walking without using a leash or from motorised vehicles on land or on water. These may, depending on their location and frequency, disrupt bird activity. This can cause the bird(s) to lose time feeding or foraging. If the bird must take flight in response to a disturbance, the impact can mean loss of energy as well as time feeding or resting. An imbalance in energy intake/expenditure may impact on the breeding success of a bird species and even upon its survival rates. Depending on its nature (and frequency) a disturbance may result in a changes to foraging location, changes in breeding location, changes to roosting locations, reduction in roosting times or even changes to migration routes.

3 Proposed Methodology

It is proposed that the monitoring methodology would be developed from adapting the methodology of Lewis & Tierney (2014) which was developed by Birdwatch Ireland and the National Parks and Wildlife Service for low tide waterbird surveys. This sets out robust disturbance recording methodologies. These are typically carried out on a monthly basis (September to March). It is proposed that to assess user disturbance across the year, disturbance monitoring is carried out monthly across a 12-month period.

Given the extensive nature of the site, it is proposed that the Greenway route be divided into subsites. These should be representative of the habitat conditions occurring at the reservoir (e.g. including rocky shore, riparian woodland, reed fringes etc.). In order to gather meaningful data, it is proposed that a team of 4 surveyors undertake 4 hour surveys across as many subsites as possible. It is recommended that the survey team carry out consultation with Birdwatch Ireland on representative sample sizes across the shoreline to be surveyed. In particular, the coverage of the shore and adjacent lands at Threecastles are to be prioritised.

The methodology to be used will include the waterbird census techniques as given by Bibby et al, (2000). 'Base' data to be gathered will include species present and a count of same, prevailing conditions and bird activity (e.g. roosting, feeding, flight). Human activity is to be recorded also and categorised (e.g. pedestrian, cycling, angling, bait-digging, dog-walking with dog on/off leash etc.).

The response of birds recorded to this activity will be categorised as per Lewis & Tierney:

W-weak response: waterbirds move slightly away from source of disturbance

M-moderate response: waterbirds move away from source of disturbance to another part of subsite, [possibly] returning to original position when activity ceases.

H-high response: waterbirds fly away to areas outside the subset and not returning during survey session.

It is also proposed that disturbance distances are recorded for each activity noted that gives rise to any disturbance. It is proposed that 'alert distance' (AD) – the distance at which a bird or group of birds starts to show alert behaviour (e.g. raising head in response to noise, alarm calling or aggressive display) is also recorded for each relevant activity. It is also proposed to record 'flight initiation Distance (FID) – the distance at which a bird or group of birds starts to escape (e.g. by swimming away, walking away or taking flight) in response to a disturbance event.

4 Discussion

It is proposed that an overall survey effort of 16 hours per month (i.e. 4 no. teams surveying for 4 hours) is given over to this monitoring for each calendar month following the opening of the eGreenway to the public. It is recommended that the methodology be submitted to Birdwatch Ireland for their review prior to this being initiated. It is suggested that this methodology be trialled at the site before it is initiated. It is also recommended that survey teams be informed by any user/visitor data gathered by/on behalf of Wicklow County Council. For example, car park usage, footfall counters or visitor usage surveys.

References

Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H. (2000) *Bird Census Techniques.* Academic Press.

Goodship, N.M. and Furness, R.W. (2023) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. *NatureScot Research Report* 1283.

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