

Cleanrath Wind Farm

**Ecological Compliance with Condition 12
of Pl. Ref. No. 15/06966 and
ABP Ref. PL 04.246742**



Planning & Environmental Consultants

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1 INTRODUCTION

1.1 General Introduction

This report outlines the information necessary to satisfy the requirements of Planning Condition 12 of PL Ref. No. 15/06966 (ABP Ref. PL 04.246742). The condition states that:

“Pre-construction and post-construction monitoring and reporting programmes for birds (particularly Hen Harrier and Merlin), otter, badger and Kerry slug shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. The surveys shall be undertaken by suitably qualified and experienced specialists.

Surveys shall be completed annually for a period of five years following commissioning of the wind farm and copies of the reports to the planning authority shall also be submitted to the National Parks and Wildlife Service”.

This report demonstrates how the information regarding pre and post construction ecological monitoring that is contained in the application documentation will be implemented. This information demonstrates also how it is intended to comply with Condition 12 in the grant of planning permission. The following sections provide a breakdown of the proposed approach to ecological surveys and monitoring at both pre and post construction phases.

1.2 Timeframe of Proposed Monitoring Works

As per Condition 12, bird, otter, badger and Kerry slug monitoring surveys will be undertaken during the year prior to commencement of works and in years 1, 2, 3, 4 and 5, post-construction (Operational Phase).

1.3 Objectives

This document has been prepared having regard to the following objectives outlined below:

- To record usage of the site by species of identified key ecological and ornithological receptors, in particular hen harrier, merlin, otter, badger and Kerry slug during the pre-construction and post-construction phase of the development.
- To monitor short-term and long-term effects on the local populations of these species.
- Report on findings of pre-construction phase and post-construction phase monitoring at the end of each monitoring year (pre-commencement and in years 1, 2, 3, 4, 5 post-commissioning).

2 PRE-COMMENCEMENT ECOLOGICAL SURVEYS

2.1 Bird surveys

2.1.1 Target Species

Six target species (BoCCI (Birds of Conservation Concern in Ireland), red listed species and bird species listed on Annex I of the EU Birds Directive) were recorded within the study area during pre-construction bird surveys.

Table 2.1 Birds of conservation interest recorded during field surveys undertaken at the permitted wind farm site and its environs at Cleanrath, Co. Cork.

| Common Name | Conservation Status | Status at site |
|--|-----------------------------|---|
| Hen harrier (<i>Circus cyaneus</i>) | Annex I; EU Birds Directive | Occasional in winter |
| Merlin (<i>Falco columbarius</i>) | Annex I; EU Birds Directive | Casual visitor in both breeding and non-breeding season |
| Peregrine (<i>Falco peregrinus</i>) | Annex I; EU Birds Directive | Casual winter visitor |
| Golden Plover (<i>Pluvialis apricaria</i>) | Annex I | Occasional visitor in small numbers in winter and passage migrant |
| Chough (<i>Pyrrhocorax pyrrhocorax</i>) | Annex I | Occasional visitor in small numbers in non-breeding season. |
| Meadow pipit (<i>Anthus pratensis</i>) | BoCCI Red List | Widespread resident, breeds |

The focus of the pre-commencement surveys will be on the Annex I species, hen harrier and merlin, as required by Condition 12 of the grant of planning permission. Likewise any breeding or foraging/roosting sites of any other Annex I or Birds of Conservation Concern in Ireland (BoCCI) red -listed birds will be recorded, depending on the season.

Pre-commencement bird surveys will be undertaken immediately prior to the initiation of works at the wind farm site and will comprise one round of thorough walkover surveys to cover the entire development footprint and 500m buffer thereof. It is noted that on page 5-72 of the EIS accompanying the planning application for this project, it is stated that '*no felling of conifers, individual trees or bushes will be carried out during the general bird breeding season (the 1st March to the 31st August inclusive)*'.

In the breeding season (April-August), the focus of these surveys will be to establish the presence of any breeding hen harrier or merlin at the site or any evidence of usage by these species during the breeding season. While Condition 12 does not specify the survey methods to be employed, the methods will be based on Gilbert et al., 1998 and Hardey et al., 2013, which are accepted best practice for determining the location of nesting hen harrier and merlin (both EU Annex I bird species). As stated above, any breeding activity of any Annex I or BoCCI red-listed birds will also be recorded.

Should the works be programmed to commence in the non-breeding season, the pre-commencement surveys will comprise a thorough site walkover to record the activity of any target species including any Annex I or BoCCI red-listed bird species. A round of dusk watches for hen harrier roosts will also be carried out within the permitted development site and its two kilometre buffer prior to the commencement of works, should this be programmed for the winter period.

2.2 Mammal surveys

The detailed and comprehensive ecological surveys that were undertaken during the planning process informed the design of the development to avoid or minimise impacts on habitats of potential significance for mammals species such as otter and badger. Following these surveys, no significant effects on otter or badger were predicted. However, Pre-commencement surveys will be carried out for these species as required to satisfy Condition 12 of the grant of planning permission. All surveys will be carried following NRA/TII guidelines. All proposed works areas will be walked for signs of badger or badger setts, including a 150m buffer around each turbine. Otter surveys to be undertaken at all locations where the proposed construction footprint occurs in close proximity or crosses watercourses. Watercourses will be searched for a distance of 150m adjacent to any works or crossing point. Survey reports will be sent to the planning authority and to the NPWS for review.

If any active badger setts or otter holts are recorded during the pre-commencement surveys, appropriate buffers (as per NRA/TII guidelines) will be enforced around them during the construction period to avoid habitat loss or disturbance.

2.3 Kerry Slug surveys

A derogation licence was issued by the NPWS in relation to this development and the conditions of this licence will be met in full. A Kerry Slug management Plan was provided as part of the application documentation and will be implemented in full. The licence requires that the following actions are undertaken:

- Pre-construction walkover surveys of areas of suitable habitat within the construction footprint as identified in previous surveys for the species.
- Pre-construction removal of slugs from areas of suitable habitat and translocation to areas of suitable habitat.

It will be necessary to update and renew the derogation licence(see Appendix 1). A Kerry slug management plan for the site has been provided within the application documentation and will be implemented in full.

3 POST-CONSTRUCTION ECOLOGICAL SURVEYS

3.1 Birds

Surveys will establish whether there is a presence of breeding hen harrier, merlin and other target species at the site. As with section 1.1 above, reporting will be undertaken following the completion of each field season and issued to the Planning Authority and the NPWS as per Condition 12.

Post-construction monitoring will commence in the year of completion/commissioning of the permitted development and will be undertaken between April to August period. Monitoring will consist of breeding hen harrier and merlin surveys and winter hen harrier roost surveys between October -March inclusive (as per national monitoring methods).

3.1.1 Survey Methodologies

3.1.1.1 Breeding Raptor Surveys

Breeding raptor surveys (birds of prey/owls) will be completed in April, May, June and July for each year of operational monitoring. Survey methods for the species potentially present will be employed (Hardey et al., 2013). The primary focus of this survey type will be hen harrier and merlin, but data relating to other species observed will also be gathered. The study area will extend to the area within two kilometres of the permitted development site in the operational phase, as per previous surveys conducted at the site for breeding hen harrier.

3.1.1.2 Winter Roost Surveys

Winter roost surveys, focusing on hen harrier will be undertaken on six occasions (one survey per month) between October and March during each of the five years of post-construction surveys. The survey will involve dusk watches over areas of suitable roosting habitat (Hardey et al., 2013). The study area will cover the area within two kilometres of the permitted development site in the operational phase.

Table 3.1 Proposed post-construction bird monitoring work schedule for the proposed wind farm development

| Survey Scope | Phase | Period | No. of Visits | Survey Method |
|---------------------------------------|-----------------------|---------------|--|---|
| Hen harrier Winter Roost Survey | Post- construction | October-March | 6 visits over the winter season for each construction monitoring year | Dusk Roost Watches in areas of suitable habitat (Hardey <i>et al</i> , 2009) |
| Breeding Raptor Surveys | | April-August | 4 visits / monitoring year | Breeding raptor survey (Hardey <i>et al</i> , 2009) |
| | | | | |

3.2 Mammal surveys

Post-construction surveys for badger and otter will be completed on the site for for five years. These surveys will be undertaken following the same scope and methodology as proposed for the pre-construction surveys. All results will be sent to the Planning Authority and to the NPWS.

3.3 Kerry slug surveys

The Kerry Slug Management Plan will be implemented in full, as will the conditions of the derogation licence. This provides for post-construction surveys that cover the five year period as required by Condition 12 of the grant of planning permission. Yearly reporting of findings to be sent to the Planning Authority and the NPWS.

4 SURVEY REPORTING

As required under Condition 12, a report summarising the findings of pre-construction phase and post-construction ecological monitoring will be submitted to the Planning Authority and the National Parks & Wildlife Service (NPWS) at the end of each monitoring year. This will provide details of the following:

- Survey methods employed,
- Results of field surveys,
- Potential effects/impacts on birds, mammals and invertebrates post-construction (if any) and
- Recommendations that may inform additional mitigation measures during the operational phase of the wind farm project.

Maps showing the results of surveys will be produced using GIS software applications to accompany the final report at the end of each monitoring year.

5 REFERENCES

Colhoun K. & Cummins S. 2013. Birds of Conservation Concern in Ireland 2014-2019. *Irish Birds* (9) p523-544

Gilbert, G., Gibbons, D.W. and Evans, J. (1998). *Bird Monitoring Methods: a manual of techniques for key UK species*. R.S.P.B., Sandy, U.K.

Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. and Thompson, D. (2013). *Raptors: a field guide to survey and monitoring. Third Edition*. The Stationery Office, Edinburgh.

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Meredith, C., Venosta, M. & Ransom, R. 2002. *Cordington Wind Farm Avian Avoidance Behaviour Report 2002*. Biosis Research Project.

Scottish Natural Heritage, 2009. *Monitoring the Impact of Onshore Wind Farms on Birds*. Scottish Natural Heritage.

Scottish Natural Heritage, 2014. *Recommended Bird Survey Methods to Inform Impact Assessment of Onshore Wind Farms*. Scottish Natural Heritage.

Appendix 1

Kerry Slug Derogation licence



An Roinn
Ealaíon, Oidhreacht agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht

Licence No.: DER/KERRY SLUG 2012-14

**EUROPEAN COMMUNITIES (BIRDS AND NATURAL HABITATS) REGULATIONS
2011 (S. I. No 477 of 2011)**

DEROGATION LICENCE

Granted under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, hereinafter referred to as "the Habitats Regulations".

Introduction

The Minister for Arts, Heritage and the Gaeltacht, (hereinafter referred to as "the Minister"), after obtaining professional advice, is satisfied that: -

- (A) this licence should be granted for the purpose of protecting wild fauna and conserving natural habitats, and
- (B) there is no satisfactory alternative, and the action authorised by this licence will not be detrimental to the maintenance of the population of **KERRY SLUG** referred to below at a favourable conservation status in their natural range.

Licence

The Minister, in exercise of the powers conferred on him by Regulation 54 of the Habitats Regulations hereby grants to **Cleanrath Windfarm Limited** ("the licensee") a licence in respect of the **Kerry Slug**. This licence authorises the following:

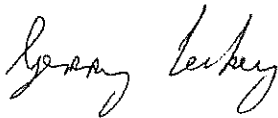
- (a) disturbance;
 - (b) damage or destruction of breeding sites or resting places;
- ("the authorised actions").

This licence is subject to the terms and conditions set out overleaf.

Terms and Conditions

1. This licence is granted solely in respect of the activities specified in connection with **the proposed wind farm development at Cleanrath, Inchigeelagh, Co. Cork.**
2. The authorised actions shall be carried out on the licensee's behalf by, or under the authorisation of, **DixonBrosnan Environmental Consultants, 7 The Cedars, Bridewood, Ovens, Co. Cork** ("the scientific agent").
3. All activities authorised by this licence, and all equipment used in connection herewith, shall be carried out, constructed and maintained (as the case may be) so as to avoid unnecessary injury or distress to the species concerned.
4. This licence may be modified or revoked, for stated reasons, at any time.
5. The actions to which this licence authorises shall be completed between the **22nd February 2012** and the **31st December 2012.**
6. No agent or servant of the licensee, nor any other person, shall carry out any of the activities to which this licence applies unless authorised in writing by the licensee. Any such agent, servant or other person shall make a copy of the written authorisation available for and shall produce it on demand to any member of An Garda Síochána or an authorised officer.
7. This licence is granted subject to the licensee, including their servants and the scientific agent, adhering to the mitigation measures as set out by the scientific agent in the application and any additional measures requested by the National Parks and Wildlife Service.
8. Route of roads, location of borrow pits, substation and turbines should be surveyed for suitable Kerry Slug habitat before construction commences. The results of this survey must be submitted to National Parks and Wildlife Service (NPWS) for comment and approval and, if necessary, the route and locations amended with resurvey to minimise removal of Kerry Slug habitat features (boulders).
9. All roadways should be constructed of rock compatible with local geology (not limestone or base-rich rock).
10. Any new rock faces created during construction should be left exposed to provide replacement habitat.
11. Prior to any construction work which involves removal of areas of rock and natural vegetation that constitutes suitable Kerry Slug habitat, the area should be competently searched for the presence of Kerry Slug and any found should be removed for translocation. This removal work should commence one month before the start of any scheduled work.
12. The method employed for searching and removal must be submitted for prior approval to NPWS.
13. Slugs removed from the site should be translocated to a suitable area of habitat, this area to be approved in advance by NPWS.

14. All trapping and translocation work must be carried out by a suitably qualified person.
15. A protocol for monitoring the presence of Kerry Slug within the proposed development site during the construction period and for two years post construction must be devised and submitted to NPWS for prior approval.
16. All plans, protocols and an annual report of the monitoring work should be submitted giving full details of the work done under the terms of this licence to Dr Brian Nelson, National Parks and Wildlife Service, 7 Ely Place, Dublin 2.
17. During the progress of the activities to which this licence applies, the licensee shall make a copy of the licence available for inspection on each site where the activities are taking place, and shall produce it on demand to any member of An Garda Síochána or an authorised officer appointed under Regulation 7 of the Habitats Regulations (hereinafter referred to as "an authorised officer").
18. Within 5 working days of being requested to do so by an authorised officer, the licensee shall provide a report on the progress of the work covered by this licence.
19. The licensee shall, within 14 days of completion of the actions which this licence authorises, submit a written report to the address below, describing the activities carried out and the mitigation measures implemented in pursuance of this licence.
20. The local NPWS District Conservation Officer Declan O'Donnell (023 37347) shall be contacted prior to any work being carried out under the terms of this licence.

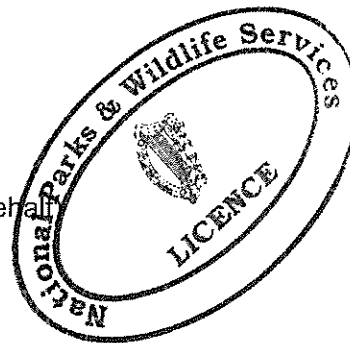


Gerry Leckey

(a person authorised by the Minister to sign on his behalf)

22nd February 2012

Species Protection Unit,
National Parks and Wildlife Service,
Department of Arts, Heritage and the Gaeltacht,
7 Ely Place,
Dublin 2.



NOTES (1 to 2).

- This licence is granted for the period specified and subject to compliance with the conditions specified. Anything done other than in accordance with the terms of this licence may constitute an offence.
- This licence applies to the **Kerry Slug** and to no other species.



BRIEFING NOTE

| | |
|---------------------------|-------------------------------|
| Project/Reference: | 180655 - Cleanrath |
| Time & Date: | 21/03/2019 |
| Subject: | Cleanrath Nesting Bird Survey |
| Author: | David McNicholas |

1 INTRODUCTION

McCarthy Keville O'Sullivan were commissioned by Cleanrath Windfarm Ltd., to undertake a nesting bird survey of a section of the turbine delivery route at the windfarm site. In order to facilitate turbine delivery, overhanging vegetation growing along the roadside will need to be cut back to facilitate sufficient clearance between the vegetation and the infrastructure during delivery. As the vegetation clearance will be undertaken in March 2019, it will be undertaken within the nesting bird season, as defined within the Wildlife Act (As Amended) 2017 ([S.I. No. 166 of 2017](#)) as 1st March to the 31st October in any year. However, Section 40 of the Wildlife Act provides exemptions for various activities including clearance in advance of construction¹. Although the proposed vegetation clearance is covered by the exemptions under Section 40, the nesting bird survey was undertaken route on the 21st March 2019 following due diligence. The site location is provided in Figure 1.1.

Statement of Authority

The surveys were undertaken on the 21st March 2019 by David McNicholas (B.Sc., M.Sc., MCIEEM) of McCarthy Keville O'Sullivan Ltd. This report has been prepared by David McNicholas (B.Sc., M.Sc., MCIEEM). David has over eight years professional consultancy experience and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). This report has been reviewed by Pat Roberts (B.Sc. Environmental Science, MCIEEM) who has over 14 years' experience in management and ecological assessment.

2 METHODOLOGY



The breeding bird survey was undertaken on the 21st March 2019. The survey route along is shown in Figure 2.1. The survey methodology utilised an adapted version of the British Trust for Ornithology's (BTO) Breeding Bird Survey technique (Bibby et al., 2000 & Gilbert et al., 1998²). All bird locations, numbers, behaviour were recorded by annotating field maps and by taking observer notes. In addition, all bird species encountered during the survey were mapped

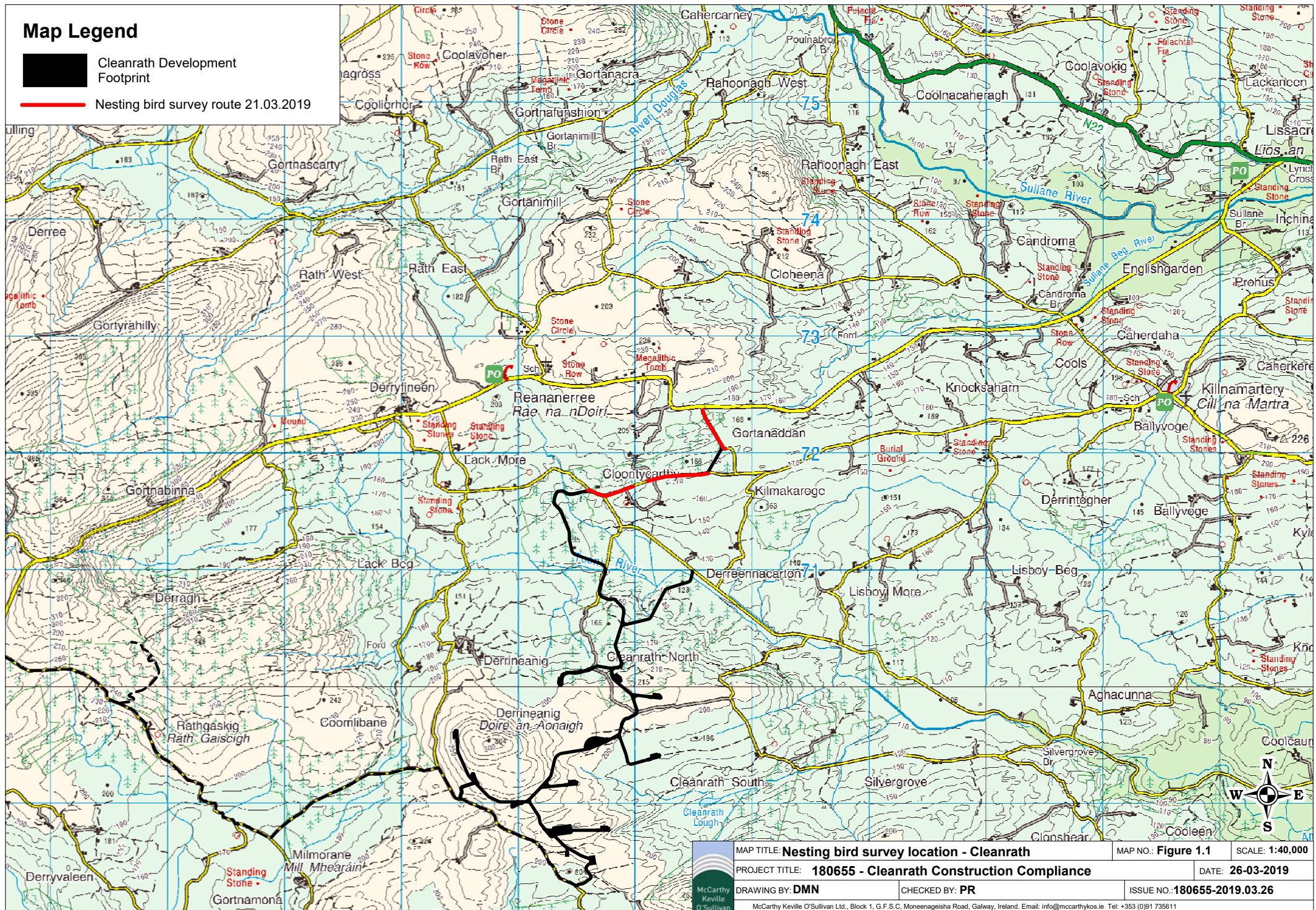
¹ "[e] the clearance of vegetation in the course of road or other construction works or in the development or preparation of sites on which any building or other structure is intended to be provided;"

² Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S.H. 2000. Bird Census Techniques. Academic Press, London.

Gilbert, G., Gibbons, D.W. & Evans, J. (1998) Bird Monitoring Methods - a Manual of Techniques for Key UK Species. RSPB: Sandy.

Map Legend

-  Cleanrath Development Footprint
-  Nesting bird survey route 21.03.2019



MAP TITLE: Nesting bird survey location - Cleanrath

MAP NO.: Figure 1.1

SCALE: 1:40,000

PROJECT TITLE: 180655 - Cleanrath Construction Compliance

DATE: 26-03-2019

DRAWING BY: DMN

CHECKED BY: PR



ISSUE NO.: 180655-2019.03.26

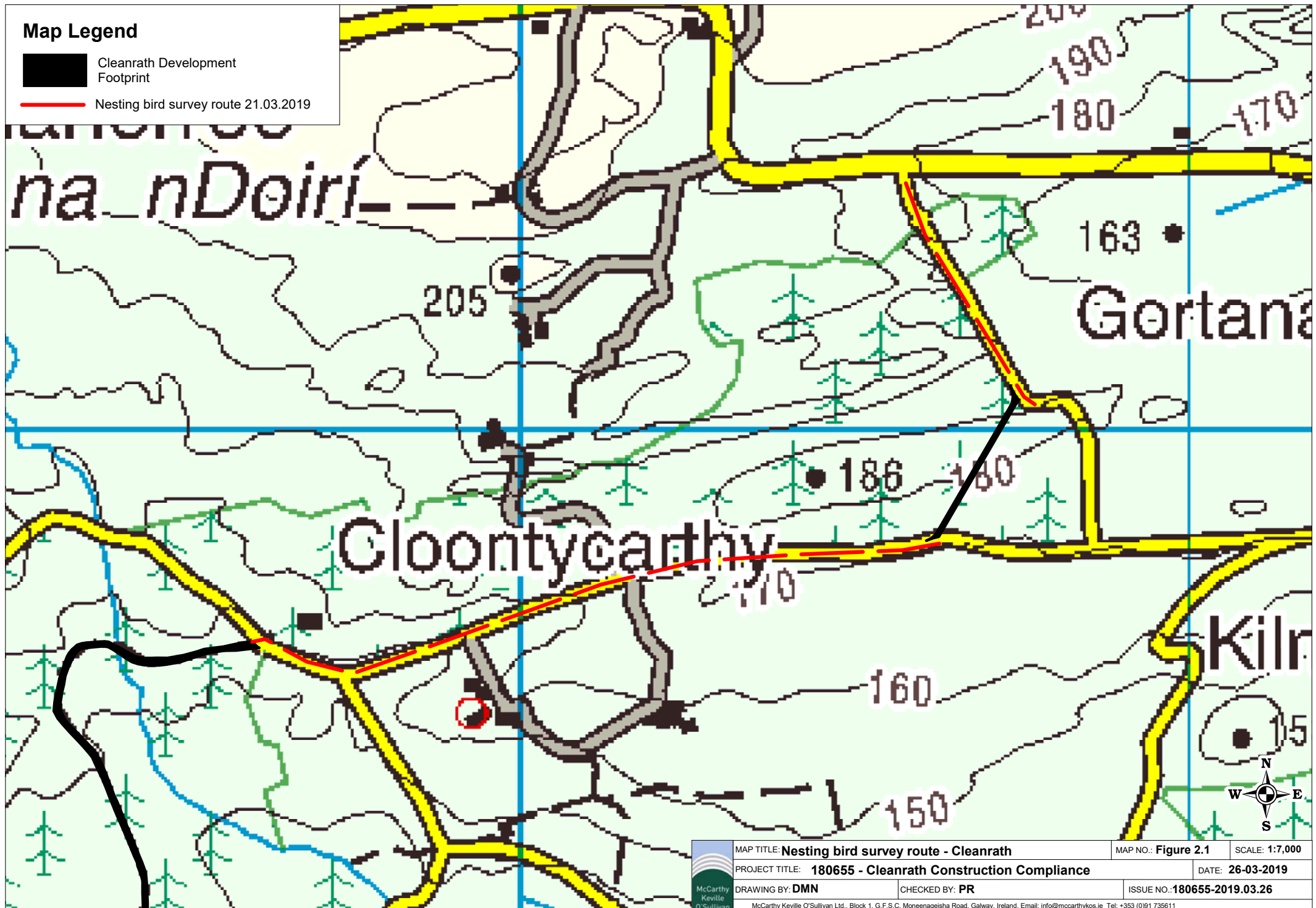
McCarthy Keville O'Sullivan


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Map Legend

-  Cleanrath Development Footprint
-  Nesting bird survey route 21.03.2019



| | | | |
|---|---|----------------------------|-------------------------------------|
|  | MAP TITLE: Nesting bird survey route - Cleanrath | MAP NO.: Figure 2.1 | SCALE: 1:7,000 |
| | PROJECT TITLE: 180655 - Cleanrath Construction Compliance | DATE: 26-03-2019 | |
| | DRAWING BY: DMN | CHECKED BY: PR | ISSUE NO.: 180655-2019.03.26 |
| | McCarthy Keville O'Sullivan Ltd., Block 1, G.F.S.C. Moneenageisha Road, Galway, Ireland. Email: info@mccarthykos.ie Tel: +353 (0)91 735611 | | |

and coded using standard BTO 'Species Codes' and 'Categories of Breeding Evidence' e.g. singing male, agitated behaviour, carrying food, recently fledged downy young etc. Attempts were made to locate nests within vegetation where likely to be visible (without tramping through vegetation potentially causing disturbance/displacement). Likelihood of nesting was determined by bird behaviour as this is generally sufficient to determine probable or confirmed breeding.

The survey was undertaken early in the morning (8am) were completed before mid-day (by 10am) to coincide peak singing and displaying by territorial males.

The weather conditions during the survey were optimal;

- Light breeze (Beaufort force 0-2),
- Sunny,
- 10-15 degrees C,
- Overcast (cloud cover 7/8).

3 SURVEY FINDINGS

The species recording during the surveys are common and widespread and typical of this type of landscape (coniferous forestry plantation with some nearby agricultural grassland). The species recorded during the site visit are listed in Table 3.1. The conservation status of each if the bird species was also assessed. This was done by using the Birds of Conservation Concern in Ireland (BoCCI), known as the BoCCI List. In this BoCCI List, birds which breed and/or winter in Ireland are classified into three separate lists (Red, Amber and Green), based on the conservation status of the bird and hence conservation priority. All of the bird species recorded were green listed, meaning that they are not of conservation concern and are common and widespread.

Table 3.1: Bird species recorded

| Common name | Scientific Name | BoCCI status |
|--------------------|--------------------------------|--------------|
| Blackbird (B.) | <i>Turdus merula</i> | Green |
| Wren (WR) | <i>Troglodytes troglodytes</i> | Green |
| Wood pigeon (WP) | <i>Columba palumbus</i> | Green |
| Chaffinch (CH) | <i>Fringilla coelebs</i> | Green |
| Chiffchaff (CH) | <i>Phylloscopus collybita</i> | Green |
| Magpie (MG) | <i>Pica pica</i> | Green |
| Rook (RO) | <i>Corvus frugilegus</i> | Green |
| Hooded crow (HC) | <i>Corvus cornix</i> | Green |
| Jackdaw (JD) | <i>Corvus monedula</i> | Green |
| Jay (Y.) | <i>Garrulus glandarius</i> | Green |
| Robin (R.) | <i>Erithacus rubecula</i> | Green |
| Goldcrest (GC) | <i>Regulus regulus</i> | Green |
| Blue tit (BT) | <i>Cyanistes caeruleus</i> | Green |
| Coal tit (CT) | <i>Parus ater</i> | Green |
| Dunnock (D.) | <i>Prunella modularis</i> | Green |
| Song thrush (ST) | <i>Turdus philomelos</i> | Green |
| Mistle thrush (M.) | <i>Turdus viscivorus</i> | Green |
| | | |

The trees and vegetation had limited leaf growth and it was possible to gain good visibility of potential nest site (see Plate 3.1). In addition, much of the existing verges have already been

cut using a flail during the hedge cutting season (winter months), see Plate 3.2. This has reduced the suitability of much of these verges for nesting birds as there has not been any substantial growth since cutting.



Plate 3.1 Example of tree line to be cut back to facilitate turbine delivery. Lack of foliage made it easy to identify nests, if present.



Plate 3.2 Previously mown/flailed road verges/hedgerows along part of the survey corridor providing low suitable nesting habitat for bird species. A number of conifers and other species growing immediately adjacent to one side of the road will need to be removed to facilitate delivery.

Although a number of territorial males were recorded along the works area, no active nests, nor signs of nest building were recorded along the route. An individual magpie was recorded carrying sticks into the forestry to the east of the road, however, although the exact nest location was not recorded, this was outside of the likely zone of disturbance. In addition, a single

eggshell of a woodpigeon was recorded along the main road. A search of the surrounding area did not locate any active nest. It is likely that the egg shell was removed from the nest by the adult, after hatching, and then deposited away from the nest in order to avoid detection by predators (hooded crows or magpies).

4 CONCLUSION AND RECOMMENDATIONS

A number of common and widespread bird species were recorded during the nesting bird surveys. No vulnerable or threatened bird species were recorded. Although territorial males were recorded singing during the survey, no active or partially constructed nests were recorded. In addition, an individual magpie was recorded carrying nesting material (sticks) away from the study area, suggesting a nest site in the wider area. A single empty wood pigeon egg was located along the main road, however, no nest site was recorded.

Following the nesting bird survey, the site manager was briefed by the surveyor of the findings. It was agreed that vegetation clearance would be kept to the minimum necessary to facilitate turbine delivery. This will minimise impact on the adjacent hedgerow and maintain nesting bird habitat. The vegetation clearance works would be undertaken in the days following the survey. This will minimise the potential for birds to start nesting between the walkover survey visit and the commencement of the vegetation clearance.

As the survey works found no evidence of nesting birds along survey corridor, within the areas requiring vegetation clearance, there will be no potential for impact on bird species.