



RWE Renewables UK Onshore Wind Limited

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# **EREDINE WIND FARM FURTHER ENVIRONMENTAL INFORMATION**

Technical Appendix 5B: Bird Protection Plan





RWE Renewables UK Onshore Wind Limited

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Technical Appendix 5B: Bird Protection Plan

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RWE Renewables UK Onshore Wind Limited

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Technical Appendix 5B: Bird Protection Plan

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# 1 INTRODUCTION

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## 1.1 PURPOSE OF THIS DOCUMENT

This document sets out the proposed approach to avoid and minimise impacts on breeding and roosting birds during the construction and operation of the Eredine Wind Farm (the 'Revised Development' – see **Further Environmental Information (FEI) Chapter 1 – Introduction**) in the form of a Bird Protection Plan (BPP). This document should be read in conjunction with the FEI Report and the EIA Report (2024).

All breeding birds are legally protected in Scotland, under the Wildlife & Countryside Act 1981 (as amended), and there is a requirement to ensure that all works associated with the construction of the Revised Development proceed lawfully with respect to this legislation.

This document provides a detailed BPP in advance of the commencement of the Revised Development (i.e. prior to any works related to wind farm construction, other than enabling works, and following the proposed pre-works surveys). The measures proposed in the BPP will be subject to further review and consultation with NatureScot prior to the commencement of construction works; and as there is the potential for the use of the Development Site by breeding birds to change with time, information from pre-construction surveys and any ongoing construction phase surveys will be considered and the BPP updated during implementation where required.

## 2 RELEVANT LEGISLATION AND GUIDANCE

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### 2.1 LEGISLATION

The key legislation relevant to this document is as follows:

- Directive 2009/147/EC on the conservation of wild birds (codified version of Council Directive 79/409/EEC, as amended), known as the 'Birds Directive'. In Scotland, the Birds Directive is translated into specific legal obligations by the Habitats Regulations 1994 as amended by the Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations (2004, 2007, 2008, 2011, 2012 and 2019) (collectively known as the 'Habitats Regulations'); and
- Wildlife and Countryside Act 1981 (the 'WCA') as amended, including by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011).

#### 2.1.1 EU BIRDS DIRECTIVE

The Birds Directive is a European legal act produced in response to commitments made under the Bern and Bonn Conventions. The Birds Directive requires member states to implement measures and legislation to protect bird populations. The Birds Directive mandates protection against deliberate disturbance of birds, particularly during the breeding period. This includes a high level of protection for species listed on Annex I of the Directive as well as certain general provisions for all naturally occurring birds in the wild.

The main provisions of the Birds Directive relevant to the Revised Development include:

- The maintenance of the populations of all wild bird species across their natural range (Article 2) with the encouragement of various activities to that end (Article 3); and
- The establishment of a general scheme of protection for all wild birds (Article 5).

Full consideration of the potential implications of the Revised Development on the maintenance of bird populations across their natural range and specifically in relation to SPAs has been given in the assessment (**EIA Chapter 11 – Ornithology** and **FEI Chapter 5 – Ornithology**). This document focuses on the implications of Article 5 and specifically how the legal protections afforded to all wild birds, and the enhanced protections to certain scarce species, will be followed during the construction of the Revised Development (including the associated tree felling operations).

#### 2.1.2 WILDLIFE & COUNTRYSIDE ACT 1981 (AS AMENDED)

In the UK, the provisions of Article 5 of the Birds Directive are implemented through the WCA.

With the exception of birds listed in Schedule 2, and for certain specified purposes under licence, the WCA makes it an offence intentionally or recklessly to:

- Kill, injure or take a wild bird;
- Take, damage, destroy or interfere with a nest of any wild bird whilst it is in use or being built;
- Obstruct or prevent any wild bird from using its nest;
- Take or destroy an egg of any wild bird;
- Disturb any wild bird listed on schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young, or whilst lekking; and/or

- Disturb the dependent young of any wild bird listed on schedule 1.

Those birds listed on Schedules A1 (golden eagle and white-tailed eagle) and 1A (golden eagle, hen harrier, red kite and white-tailed eagle) receive additional protection which makes it an offence intentionally or recklessly:

- At any time to take, damage, destroy or interfere with any nest habitually used by any wild bird included in Schedule A1; and
- At any time to harass any wild bird included in Schedule 1A.

Therefore, to comply with the WCA there should be no disturbance of breeding birds listed on Schedule 1, nor interference with the nests of species listed on Schedule A1 at any time, nor disturbance/harassment of birds listed in Schedule 1A at any time (including those at roost sites noting that under Schedule A1 of the WCA, protection is afforded to the birds using the roost, not the roost site itself).

There should also be no direct physical interference with any wild birds, or their nests, whilst they are in use or being built or while they have dependent young. It is not, however, an offence to physically interfere with old nests, except for birds listed in Schedule A1.

For species not included on schedule 1, the removal of vegetation/structures that contain nests of any wild birds could be considered an offence unless it can be shown:

- That the removal was a lawful operation;
- That reasonable precautions were taken to avoid the damage/destruction (or it could not have reasonably been foreseen), and
- That reasonable steps to mitigate damage had been taken once it was apparent that it had or would occur.

## 2.2 GUIDANCE

The proposed approach and measures outlined in this document are based on current best practice guidance, including consideration of the following publications:

- Goodship, N.M. and Furness, R.W. (MacArthur Green) (2022). Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283;
- SNH (2019). Good Practice during Wind Farm Construction (4th Edition). A joint publication by Scottish Renewables, Scottish Natural Heritage, Scottish Environment Protection Agency, Forestry Commission Scotland, Historic Environment Scotland, Marine Scotland Science, AEECoW;
- SNH (2016). Dealing with construction and birds. Guidance document produced by Scottish Natural Heritage (March 2016); and
- Forestry Commission Scotland (2006). FCS Guidance Note 32: Forest operations and birds in Scottish forests - the law and good practice.



## 3 KEY SPECIES AND RELEVANT 'PROTECTION ZONES'

### 3.1 KEY BBP SPECIES

As all wild birds, their nests, eggs and young are protected under the WCA, this BPP includes consideration of all birds, including common and widespread species, which could be affected by the Revised Development. Details of the key bird species recorded as breeding or roosting within the Development Site during the baseline surveys are provided in **EIA Appendices 11.1 and 11.2**.

**Table 3-1** provides a summary of the conservation status and statutory designations applicable to certain key species of national conservation concern and/or special legal protection that have been recorded within or near to the Development Site. A summary of the status of these species in the context of the Development Site is also provided.

**Table 3-1 - Status and Legal Protection of Key Bird Species of Conservation Concern**

| Species              | Status                                                                                                                                                               | Summary of Revised Development Area presence / status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black-throated diver | Knapdale Lochs SPA qualifying species; Annex 1 Birds Directive; WCA Schedule 1; Scottish Biodiversity list (SBL); Birds of Conservation Concern 5 (BoCC5) Amber List | Three flights of one to two birds recorded during vantage point (VP) surveys between 2019 and 2020.<br>One bird was found breeding within the Development Site during May 2019, but with no signs of chicks during follow-up surveys. In 2020, a pair attempted to breed on the same waterbody but failed at the late egg/early chick stage. In 2021, a pair fledged one chick on the same loch. In August 2021, two adults and a juvenile were seen on an adjacent off-site loch. It is assumed these were the same birds.          |
| Golden eagle         | Glen Etive and Glen Fyne SPA qualifying species; Annex I Birds Directive; WCA Schedule 1, 1A and A1; SBL; BoCC5 Green List                                           | 106 flights during VP surveys. Golden eagles were seen across the Development Site but were predominantly present between March and May.<br>Two golden eagle territories were identified within the wider landscape of the Development Site. One breeding attempt was made in 2019, and two in 2020.                                                                                                                                                                                                                                 |
| Black grouse         | SBL; BoCC5 Red List                                                                                                                                                  | In 2019, five lek sites were recorded within the Development Site, with six incidental records of single birds (and five incidental records within 1.5km). Three records of black grouse in flight were also observed, one of these (of two females) being within the Development Site.<br>In 2020, single displaying males were seen in four locations. Eight single birds on the ground were recorded, six within the Development Site. One record of two black grouse males in flight were observed within the 1.5km survey area. |
| White-tailed eagle   | Annex I Birds Directive; WCA Schedule 1, 1A and A1; SBL; BoCC5 Red List                                                                                              | 38 flights were recorded during VP surveys from 2019 to 2021. One flight comprised a pair of adults transiting the VP6 viewshed. One incidental flight of a single bird was recorded during a diver survey.                                                                                                                                                                                                                                                                                                                          |

| Species            | Status                                                               | Summary of Revised Development Area presence / status                                                                                                                                                                                                                                 |
|--------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Osprey             | Annex I Birds Directive;<br>WCA Schedule 1; SBL;<br>BoCC5 Amber List | 22 flights by a single bird and one flight by two birds were recorded during VP surveys.                                                                                                                                                                                              |
| Red-throated diver | Annex 1 Birds Directive,<br>WCA Schedule 1, SBL,<br>BoCC5 Green List | Seen on eight lochans and incubating on three of these within the Development Site in 2019 and 2020. Bred successfully on one lochan within the Development Site in 2019, 2020 and possibly also 2021. A total of 94 flights were recorded during VP surveys and focal diver watches. |
| Whooper swan       | Annex 1 Birds Directive,<br>WCA Schedule 1, SBL,<br>BoCC5 Amber List | In March, April and May 2019, whooper swans were seen on three lochans. Three flights of between one and nine birds were recorded between October 2020 and May 2021. In June 2020, a single bird was seen feeding close to Loch Dubh-ghlas.                                           |

## 3.2 PROTECTION ZONES

**Table 3-2** provides a summary of the distances (and periods) over which the key species in Table 3-1 will be particularly vulnerable to impacts from construction works. Noting that the information provided is general guidance, specific mitigation requirements for all species nesting within or near to works areas will need to be determined by a suitably experienced ornithologist on a case-by-case basis. Requirements may vary depending on nesting locations of the key species and black grouse lekking locations in the future; and potentially for other species recorded during pre-construction surveys for example.

**Table 3-2 - Summary of Indicative Disturbance Protection Zones and Main Nesting Periods for Selected Species**

| Species              | Protection Zone and breeding season <sup>1</sup>                                                             | Notes/Rationale                                                                                                                                                                                                                                                                                                                                                        |
|----------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black-throated diver | 500-750m<br>April-August                                                                                     | Black-throated diver breed on larger lochs or smaller pools near larger lochs, preferring areas with shallow water for feeding and vegetated islands or sheltered parts of the mainland for nesting.<br>Adults return to breed in March/April and stay until late August/September.                                                                                    |
| Golden eagle         | 750-1000m<br>January-August<br><i>Roosts are also protected from disturbance and are occupied year-round</i> | Golden eagles are present in their breeding territories all year round. Nest building takes place from autumn to late winter, with mating occurring between January and April (mainly March).<br>For non-breeding roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid potential disturbance. |

<sup>1</sup> Primary source for disturbance distances is: Goodship, N.M. and Furness, R.W. 2022. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283. MacArthur Green.

| Species            | Protection Zone and breeding season <sup>1</sup>                                                                      | Notes/Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black grouse       | 500-750m (lekking males)<br>All year round but core period from March-May<br>100-150m (nesting females)<br>April-July | Black grouse are present all year round, but numbers at lek sites peak early in the morning during spring. Disturbance free zones are typically required from two hours before and after sunrise during April and May.<br><br>Females typically nest in vicinity of lek sites and lay clutches of 6-11 eggs from late April to early June. Incubation lasts 25-27 days, with young being able to fly after two weeks but not being fully independent until 2-3 months old. |
| White-tailed eagle | 750m<br>January-August<br><i>Roosts are also protected from disturbance and are occupied year-round</i>               | Goodship & Furness indicates 500-750m buffer for the breeding season. Draft forestry guidance advocates 250m for most activities near roosts outside the breeding season, it should be noted that roosts of immature white-tailed eagle can be all year.<br><br>For non-breeding season roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance.                                         |
| Osprey             | 750m<br>March-October                                                                                                 | Adults return to breeding sites from mid-March but most arrive in early April, with peak egg laying in late April.<br><br>Incubation is 35 to 43 days and fledging period 40 to 59 days, typically fledging from Mid-July to late August.                                                                                                                                                                                                                                  |
| Red-throated diver | 500-750m<br>April-September                                                                                           | Red-throated diver typically breed on small pools or lochans in remote open moorland or forested areas. They prefer shallow pools with well-vegetated banks for nesting, usually near the water's edge.<br><br>Peak egg-laying occurs from late May to early June, with an average incubation period of 27 days. The chicks fledge after 34 to 48 days and tend to stay on the nesting loch until fledged.                                                                 |
| Whooper swan       | 200-600m (non-breeding)                                                                                               | Whooper swan is a winter visitor to UK from Iceland, although a small number of pairs nest in the north of the UK.                                                                                                                                                                                                                                                                                                                                                         |

An approach to achieve reasonable precautions for common and widespread species is provided in the Ecological Clerk of Works and Construction Phase Surveys: Nest Checks for Common Species sections.

## 4 ROLES AND RESPONSIBILITIES

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### 4.1 THE APPLICANT

RWE (or any future owner of Eredine Wind Farm) will have ultimate responsibility for implementing this BPP. RWE will appoint suitable specialists to carry out specific duties prescribed in the BPP.

### 4.2 PROJECT ORNITHOLOGIST

RWE will appoint a suitably qualified and experienced Project Ornithologist to oversee the BPP. This role-holder shall co-ordinate survey effort, advise the Environmental Clerk of Works (EnvCoW) or Ecological Clerk of Works (ECoW) on mitigation requirements, and act as the lead contact for any communications with NatureScot with regard to breeding and roosting birds.

### 4.3 ENVIRONMENTAL/ECOLOGICAL CLERK OF WORKS

RWE will appoint a suitably qualified and experienced EnvCoW or ECoW for the duration of the enabling works, construction and decommissioning/site restoration phases. The appointment of the individual(s) covering the EnvCoW or ECoW role will be agreed in advance through consultation with NatureScot. The EnvCoW or ECoW will have authority to halt immediately any works that have the potential to affect nesting birds or that would contravene the ecological/environmental commitments.

The EnvCoW or ECoW will have responsibility for checking that:

- The BPP measures, as set out in this document, are properly implemented and adhered to;
- The potential presence of nesting birds is regularly monitored during the works; and
- Appropriate action is taken should any nests of key species be at risk of disturbance (e.g. active nest sites not previously identified during the pre-works surveys).

The EnvCoW or ECoW will attend site as required throughout the felling/construction period to ensure all environmental mitigation relevant to birds is delivered, and ensure compliance with the mitigation included in the EIA Report (2024), including the BPP, and any related planning conditions.

The EnvCoW or ECoW will provide monthly reports on the progress of the works in relation to the implementation of the environmental protection measures (including measures under the BPP). They will also provide a final report at the end of the construction and site restoration works. Copies of these reports will be provided to Argyll and Bute Council and NatureScot on request.

## 5 IMPLEMENTATION OF BIRD PROTECTION PLAN

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### 5.1 PRE-CONSTRUCTION PHASE

#### 5.1.1 PRE-CONSTRUCTION SURVEYS

##### **Divers**

Prior to the commencement of construction works, a pre-construction survey for black-throated and red-throated divers will be carried out within suitable habitat located within 850m of the Revised Development<sup>2</sup>. The survey will follow the methods detailed in Gilbert *et al.* (1998)<sup>3</sup> and will involve a combination of walkover survey coverage (minimising the amount of shoreline walked) and focal watches to identify and monitor any active nest site locations.

The pre-construction surveys will be undertaken in the breeding season immediately preceding the commencement of construction works. The purpose of these surveys will be to:

- Confirm the status of black-throated diver in the survey area noted; and
- Establish whether any breeding pairs are present and the location of nests

Black-throated diver surveys will commence in late April to capture early season breeding activity. They will comprise a first visit between 23 and 30 April and a second visit between 1 June and 23 July to cover the breeding season. Red-throated diver surveys will commence at the end of May or in June to capture early season breeding activity. After this first visit, a second visit will be completed in July. There will be at least 14 days between the two visits.

Whooper swans were also recorded in association with waterbodies in this area. The diver surveys will therefore also record any breeding or foraging activity by whooper swans.

##### **Black Grouse**

Prior to the commencement of construction works, pre-construction black grouse lek surveys of the Revised Development Site and a surrounding buffer of 850m will be carried out. The surveys will follow the methods detailed in Gilbert *et al.* (1998) and will involve walkover surveys of all suitable lekking habitat, including inspections of previously identified core lek site as well as the satellite leks.

Surveys will take place in April and early May, thereby focusing on the core lekking period.

The pre-construction surveys will be undertaken in the breeding season immediately preceding the commencement of construction works. The purpose of these surveys will be to confirm the continued presence of black grouse, the attendance of lek sites and the number of lekking males within the survey area noted. These surveys will identify whether the satellite lek sites are still used, and/or if any other lek sites that could pose a constraint to the construction works are present.

##### **Golden Eagle, Osprey and White-tailed Eagle**

Prior to the commencement of construction works, pre-construction raptor surveys within the area up to 1.1km from the Revised Development will be carried out. The surveys will follow the methods

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<sup>2</sup> 750m disturbance free zone plus 100m to account for potential micro-siting.

<sup>3</sup> Gilbert, G., Gibbons, D.W. & Evans, J. 1998. *Bird Monitoring Methods: A manual of techniques for key UK species*. RSPB.

detailed in Hardey *et al.* (2013)<sup>4</sup> and will involve a combination of VP surveys and walkover surveys (and where necessary, followed by focal watches to identify and monitor any active nest and roost site locations).

The purpose of these surveys will be to:

- Identify roost locations of golden eagle and white-tailed eagle;
- Identify the presence of osprey and any other specially protected raptor species in the survey area noted; and
- Establish whether any breeding pairs are present and the location of nests.

The programme of surveys will commence from January to capture early season eagle nest construction activity. Surveys will extend throughout the breeding season immediately preceding the commencement of construction works, as detailed in **Table 5-1**.

**Table 5-1 - Raptor Survey Programme**

| Timing             | Activities                                                                                                                                                  |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| January / February | Check known nest and roost sites for occupancy. Carry out vantage point watches to identify eagle movements and activity and potential new nests or roosts. |
| April              | Check known sites from distance. Carry out VP watches with particular focus on locating active nests. Check area for osprey occupancy.                      |
| June               | Check active nests for young. Continue VP monitoring for new sites.                                                                                         |
| Late July          | Check active nests for fledged young. Continue VP monitoring for new sites.                                                                                 |

### 5.1.2 PRE-CONSTRUCTION INDUCTION

Prior to any personnel working within the felling or construction area, they will be fully briefed by the EnvCoW/ECOW on:

- The potential for nesting birds to be present in the area;
- The status and legal protection of these; and
- Relevant details of the BPP and what actions they need to take should any nesting birds be encountered or be suspected as present during works.

## 5.2 CONSTRUCTION PHASE

### 5.2.1 KEY SPECIES SURVEYS

The raptor, diver and black grouse surveys set out in Section 5.1 will be repeated during the construction phase. These will identify any breeding activity and the requirement for any associated works exclusion zones, assisting the contractor to schedule the works appropriately to avoid disturbance impacts on nesting or lekking birds (or any other Schedule 1-listed species).

<sup>4</sup> Hardey, J. *et al.* (2013). Raptors. A Field Guide for Surveys and Monitoring. SNH, Inverness.

Any exclusion zones required around active nest and roost sites will take account of the distances provided in **Table 3-2**.

### 5.2.2 TIMING OF WORKS

Site clearance and construction activities should ideally be timed to take place outside the main breeding season (mid-March to mid-September) to avoid nest destruction and disturbance to all nesting birds. With regards to divers, young recently fledged birds may still be present around the nest into August. For golden eagle, young recently fledged birds may still be present until mid-September. The presence and potential disturbance of these dependent young must be taken into consideration given the species' Schedule 1 protection status.

SNH (2016) recognises that avoiding construction work within the breeding season for birds may not be possible, as the season coincides with the best weather for construction and recommends precautionary measures will to be taken in relation to breeding birds. For instance, if works will coincide with the breeding season, it is considered advantageous to start before mid-March. This will allow the majority of birds the opportunity to take potential disturbance into account when selecting a nest site.

### 5.2.3 NEST CHECKS FOR COMMON SPECIES

Systematic pre-works checks of the felling/construction working area will be undertaken by suitably experienced ornithologists to establish if common or widespread birds are nesting. This will involve an experienced ornithological surveyor walking and scanning the area of works to confirm breeding birds based on audio and/or visual signs.

Nest searches will also be completed on a rolling programme by the EnvCoW/ECow in order to provide the most up-to-date information. These will cover all areas where works are being undertaken that could impact on nesting birds, with active breeding sites defined as follows:

- Presence of nest sites with eggs and/or young;
- Observation of birds carrying nest material to a nest site (e.g., hole in tree);
- Birds carrying food to a nest site;
- Birds carrying faecal sacs away from a nest site; and/or
- Birds observed behaving in a highly agitated manner (e.g. alarm calling), performing distraction display and/or feigning injury when approached by a surveyor.

Where nest locations of common and widespread species fall within the construction footprint, no works shall be undertaken within a 5m buffer until it is confirmed that chicks have fledged or the nest has failed. Where there is any doubt as to whether the nest is in use or not, it will be monitored by the EnvCoW/ECow over a period of a week. Direct observations of the nest will be made on the 1st, 3rd and 5th days to provide clear evidence that the nest is disused and no eggs are present. Where a nest is confirmed as disused but with eggs present (indicating an abandoned nest), the nest will not be moved until a licence has been obtained for the taking of the eggs.

The above measures will be articulated in the CEMP, and implemented by the EnvCoW/ECow, as instructed by a suitably experienced ornithologist. The ornithologist will confirm when breeding has been completed at any nest sites, and when any protection zone can be removed.



An emergency procedure will be implemented by site workers if any breeding birds are encountered. All work will cease, and the EnvCoW/ECow will inspect the site and establish any mitigation in line with this BPP and the advice of a suitably experienced ornithologist.

An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined, under consultation with NatureScot if required.

It is acknowledged that locating nest sites of many bird species and proving that birds are breeding can be a very difficult and time-consuming task. However, an appropriate level of survey by experienced ornithological surveyors will be undertaken in order to confirm active nest sites. In addition, where breeding is suspected, though a nest has not been confirmed, a conservative approach will be taken and the area classified as an active breeding site, allowing appropriate mitigation to be applied.

#### **5.2.4 ENVCOW/ECOW PRESENCE**

Regular visits by (or the ongoing presence of) the EnvCoW/ECow will enable quick response to any unforeseen impacts on birds. As a minimum, visits will occur for the nest checks and construction phase mitigation specified in this BPP. The EnvCoW/ECow should proactively use such opportunities to monitor, record and make recommendations on any other points of bird protection as they deem fit based on the site circumstances.

#### **5.2.5 CONSTRUCTION PHASE MITIGATION**

##### **Black-throated and Red-throated Divers**

Where construction phase surveys confirm the presence of breeding divers, no works shall be undertaken within a 750m protection zone until a Protected Species Risk Assessment (PSRA) has been produced and agreed with NatureScot. This will assess any potential for a reduction of the protection zone buffer or allowance of certain works activities within the buffer dependant on identified mitigation measures. This will be determined on a case-by-case basis by the Project Ornithologist, and will be informed by factors such as local topography, screening, stage of breeding cycle, and the type, distance and level of potential disturbance from the works.

##### **Black Grouse**

A 750m protection zone will be established around any active black grouse leks. Where surveys confirm the presence of nesting black grouse females, a 100-150m protection zone will be implemented. The extent of each zone will be determined on a case-by-case basis by the Project Ornithologist. Lek sites would typically only be occupied around dusk and dawn, and hence unlikely to overlap with construction hours. Therefore, in order to avoid such disturbance or displacement, all construction activities taking place within 750m of an active black grouse lek site will be restricted to the period from two hours after sunrise and two hours before sunset between mid-March and May.

In the event that works should need to take place beyond sunset or before sunrise during April and May, works will only be permitted to take place within 750m of an active lek site under supervision by the ECoW/EnvCoW or a suitably qualified ornithologist (SQO). No works will be permitted within 100m of an active black grouse nest. As deemed necessary by the Project Ornithologist, additional restrictions (e.g., use of handheld machinery or manual tools only, reduced vehicle speed limits) will be put in place for the zone up to 150m from the nest.



## **Golden Eagle**

Specific measures will be implemented for active golden eagle roost sites. In the absence of mitigation, disturbance from construction activities has the potential to result in the disturbance and possible displacement of golden eagles from roost sites within 500m of construction areas. However, roost sites would typically only be occupied overnight (i.e., between dusk and dawn) and hence unlikely to overlap with construction hours for much of the year. Therefore, in order to avoid such disturbance or displacement, all construction activities taking place within 500m of the roost site will be restricted to between one hour after sunrise and one hour before sunset.

In the relatively unlikely event that works should need to take place beyond sunset or before sunrise, works will only be permitted to take place within 500m of the roost site under supervision by the EnvCoW/ECow or a SQO. For works required to advance beyond sunset or commence before sunrise, a monitoring watch will be conducted between two hours before to one hour after sunset in order to identify if any birds fly into the roost site.

## **Osprey and White-tailed Eagle**

In the unlikely event that either of these species is discovered nesting within 750m of the Revised Development, no works shall be undertaken within a 750m protection zone until the Project Ornithologist has produced and agreed a PSRA with NatureScot. The Project Ornithologist will also devise appropriate protection measures for any white-tailed eagle roost identified. These will be based around timing and distance restrictions, as for golden eagle roosts, but with consideration given to the specific ecology of white-tailed eagle. The EnvCoW/ECow will oversee the implementation of these measures.

## **5.3 OPERATIONAL PHASE**

### **5.3.1 TIMING RESTRICTIONS**

#### **Golden Eagle**

Specifically for golden eagle, it is unlikely that operational maintenance works would overlap with the nighttime period when the roost site is likely to be occupied (i.e., between dusk and dawn). However, in order to minimise the risk of disturbing any golden eagles which may use the roost site, all operational maintenance activities taking place within 500m of a known roost site will be restricted to the period from one hour after sunrise to one hour before sunset. In the relatively unlikely event that works should need to take place beyond sunset or before sunrise, works will only be permitted to take place within 500m of the roost site under supervision by the EnvCoW/ECow/SQO. For works both required to advance beyond sunset or commence before sunrise, a monitoring watch will be conducted.

#### **Black Grouse**

In order to avoid disturbance or displacement from operational maintenance, all maintenance activities taking place within 750m of a known black grouse lek site will be subject to timing restrictions. Maintenance will be restricted to the period from two hours after sunrise and at least two hours before sunset between mid-March and May.

## 5.3.2 ADDITIONAL AVOIDANCE, MITIGATION AND ENHANCEMENT

### Black-throated and Red-throated Divers

The operational phase will include measures to avoid and mitigate potential adverse effects on diver species as an unintended consequence of HMP enhancements. This will complement HMP design, which will ensure that diver rafts are situated:

- On lochs, lochans or pools with no existing rafts (to maximise the chances of raft success); and
- In areas away from proposed scrub enhancement or, where this is not possible, with good visibility downhill into scrub areas (to reduce the chance of predation).

The HMP will propose a raft maintenance and monitoring regime to protect breeding diver interest. This will include a detailed plan for controlling diver predators.

### Black Grouse

Scrub planting as part of the proposed HMP may include fenced enclosures to aid scrub establishment. During HMP design, consideration will be given to whether the need for fencing can be eliminated. This will eliminate the risk of black grouse mortality from fencing collisions. Any fenced enclosures deemed necessary during HMP implementation will be marked to alert black grouse to the hazard. This will involve the use of flight diverters, snow-fence netting or similar high-visibility solutions as specified by Forest Research<sup>5</sup>. Fencing will be removed once the habitat management objectives have been attained.

### All Key Species

Impacts during operation are expected to be low level. However, if any major unforeseen issues arise, the Project Ornithologist will be consulted for advice. This advice will be followed to protect the key species interests identified.

## 5.4 DECOMMISSIONING AND SITE RESTORATION

### 5.4.1 PRE-DECOMMISSIONING SURVEYS

In the absence of any environmental change, pre-decommissioning surveys would follow the methods of the pre-construction surveys. However, the decommissioning of the Revised Development is anticipated to occur following 35 years of operation. There is the potential for what is currently considered to be best practice to change over this period. It is also possible that the range of bird species that need to be considered could be different.

It is therefore proposed that the methods of the pre-decommissioning surveys for breeding birds would be reviewed, in consultation with the relevant authorities. This would occur not more than 12 months before decommissioning works are due to commence.

### 5.4.2 ADDITIONAL MEASURES

Bird protection measures during decommissioning and site restoration would likely be similar to those employed during construction. Given the 35-year timespan between construction and

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<sup>5</sup> Trout, R. and K. Kortland (2012). *Fence marking to reduce grouse collisions. Technical Note*. FCTN019. Forestry Commission, Inverness.



decommissioning, the BPP (or equivalent as required at that time) and its measures would also be reviewed. This would occur in consultation with the relevant authorities, not more than 12 months before decommissioning works are due to commence.

## 6 SUMMARY AND CONCLUSION

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In summary, bird protection measures will vary throughout the phases of the Revised Development. During the pre-construction phase, measures comprise pre-construction surveys and an induction for works personnel. The key species on which the pre-construction breeding bird surveys will focus are golden eagle, divers, osprey, white-tailed eagle and black grouse. Surveys will identify breeding activity within a species specific buffer of the Revised Development and locate nest locations of raptors, lekking sites of black grouse. In addition, any roost sites of golden eagle will be identified.

During the construction phase, protection measures include surveys, protection zones and the agreement of Protected Species Risk Assessments with NatureScot. Surveys during the construction phase will follow the same methodology as the pre-construction surveys for the key species identified. Together with the presence of an EnvCoW/ECow on site, this will avoid the destruction or disturbance of key nesting, lekking and roosting species.

During the operational phase, measures include timing restrictions on maintenance activities, careful design of habitat enhancements, and high visibility marking of potential black grouse collision hazards.

To protect birds during decommissioning and site restoration, a suite of pre-decommissioning surveys will be agreed with the relevant authorities at the time. Additional bird protection measures during decommissioning and site restoration would likely be similar to those employed during construction.

The implementation of this BPP will avoid and minimise impacts on the key species and other breeding birds. The proposed measures will safeguard against breach of legislation, and will be tailored throughout the phases of development to follow current best practice.



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