

# Red John Pumped Storage Hydro Scheme

Volume 5, Appendix 8.1: Breeding  
Bird Survey Report

ILI (Highlands PSH) Ltd.

November 2018



### Quality Information

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# Appendix 8.1 Breeding Bird Survey Report

## 8.1 Introduction

### **Background**

- 8.1.1 As part of the EIA process, the Scoping Report (which is provided in Appendix 4.2: Scoping Report) identified the potential for a range of breeding bird species to be present in the vicinity of the Development. The area encompassed by the red line boundary of the Development is hereafter also referred to as the 'Development Site'.

### **Purpose of this Report**

- 8.1.2 This report has been written as an Appendix to Chapter 8: Ornithology (Volume 2). It describes the methods used for breeding bird survey and the results obtained. Where appropriate, it provides recommendations for mitigation to minimise the ornithological impacts of the Development and highlights opportunities for biodiversity enhancement.

### **Development and Site Description**

- 8.1.3 A full description of the Development can be found in Chapter 2: Project and Site Description (Volume 2).
- 8.1.4 The habitats within the area encompassed by the Development vary with altitude. On the lower slopes up from Loch Ness there is extensive ancient semi-natural broadleaved woodland whilst on the higher ground and around the Headpond the woodland becomes coniferous, predominantly comprising Scots pine *Pinus sylvestris*, which in places is considered to be long-established of plantation origin. Outside of the woodland habitats there are areas of semi-improved grassland, blanket bog and wet heath.
- 8.1.5 There are a number of waterbodies in the vicinity of the Development, including large oligotrophic lochs as well as smaller ponds.

### **Legislative and Policy Context**

- 8.1.6 Directive 2009/147/EC on the conservation of wild birds (the 'Birds Directive') provides a framework for the conservation and management of wild birds. It sets broad objectives for a wide range of activities, although the precise legal mechanisms for their achievement are at the discretion of each Member State of the European Union. The main provisions of the Birds Directive which are of relevance to development proposals include:
- The maintenance of the populations of all wild bird species across their natural range;
  - The identification and classification of Special Protection Areas (SPA) for rare or vulnerable species listed on Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance; and
  - The establishment of a general scheme of protection for all wild birds.
- 8.1.7 All species of wild bird are protected by the Wildlife and Countryside Act 1981 (as amended) (hereafter also abbreviated to the 'WCA') which makes it an offence to intentionally or recklessly:

- Kill, injure or take a wild bird;
- Take, damage, destroy or interfere with a nest of any bird while it is in use or being built;
- Obstruct or prevent any bird from using its nest; and
- Take or destroy an egg of any bird.

8.1.8 In addition, a number of rare bird species which are listed on Schedule 1 of the WCA receive further legal protection which makes it an offence to intentionally or recklessly disturb these species whilst they are building a nest or while they are in, on or near a nest which contains eggs or young. It is furthermore an offence to disturb the dependent young of these species.

8.1.9 There are a small number of species on Schedule 1A which are protected from intentional or reckless harassment at any time. It is furthermore an offence to intentionally or recklessly damage, destroy or otherwise interfere with the nests of those species listed under Schedule A1 of the WCA, even when not in use.

8.1.10 Local planning policies for the region are detailed in the Highland Council's Highland-wide Local Development Plan (HwLDP). Table 8.1 provides a summary of those policies which are of relevance to the conservation of breeding bird species. For the precise wording of each specific policy, refer to the source document.

**Table 8.1 Summary of Relevant Policies Within the Highland-wide Local Development Plan**

Planning Policy	Purpose
Policy 28 – Sustainable Development	The Council will support developments which promote and enhance the social, economic and environmental wellbeing of the people of Highland. Proposed developments will be assessed on the extent to which they impact on habitats and species.
Policy 57 – Natural, Built and Cultural Heritage	All development proposals will be assessed taking into account the level of importance and type of heritage features, the form and scale of the development and any impact on the feature and its setting.
Policy 58 – Protected Species	Surveys are required to confirm the presence of protected species on a site. A mitigation plan will be required, prior to determining the application, to avoid or minimise any impacts of protected species. Development that is likely to have an adverse effect on protected species will only be permitted where: there is no satisfactory alternative; the development is required for preserving public health or public safety and/or other imperative reasons of over-riding public interest; and/or, the development will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range.
Policy 59 – Other Important Species	The Council will have regard to the presence of and any adverse effects of development proposals on other important species. These include species listed on Annexes II and V of the Habitats Directive, priority species listed in the UK and Local Biodiversity Action Plans (BAP) and species included on the Scottish Biodiversity List (SBL).
Policy 60 – Other Important Habitats	The Council will seek to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or their importance as corridors for the movement of wild fauna and flora. The Council will have regard to the value of other important habitats, which include: habitats listed on Annex I of the Habitats Directive; habitats of priority and protected bird species; priority habitats listed in UK and Local BAPs; and, habitats included on the SBL.

## Planning Policy

## Purpose

Policy 67 – Renewable Energy Developments

The Council will support proposals for renewable energy development where it is satisfied that they will not have significant detrimental effects on natural heritage features, species and habitats.

- 8.1.11 The Scottish Biodiversity List highlights species (and habitats) which are of highest priority for nature conservation in order to assist public bodies carrying out their biodiversity duty, as required by the Nature Conservation (Scotland) Act 2004. The SBL contains a number of bird species which are of principal importance for biodiversity conservation in Scotland and which are likely to occur at the Development Site.
- 8.1.12 The Inverness and Nairn Local Biodiversity Action Plan (LBAP) sets out a list of Priority Species and outlines various measures to protect and enhance the conservation status of these species within the region. The Inverness and Nairn LBAP includes a total of 62 bird species which are considered to be priorities for conservation.
- 8.1.13 The Birds of Conservation Concern (BoCC) (Ref 4) uses quantitative assessments against standardised criteria to place bird species on to 'Red', 'Amber' and 'Green' lists of conservation concern. Birds on the Red list are of highest conservation concern and may be Globally Threatened (under International Union for Conservation of Nature (IUCN) guidelines and assessed by BirdLife International) or have experienced breeding or wintering population declines or range contractions of more than 50 % over 25 years. The Amber list contains species which have European Red List status (Ref 2) and/or which have experienced breeding or wintering population declines or range contractions of more than 25 % (but less than 50 %) in 25 years. Green listed bird species do not fall into any of these categories and are of lowest conservation concern.

## 8.2 Methods

### Desk Study

- 8.2.1 A desk study was carried out to identify nature conservation designations for which birds are qualifying or notified species and to search for records of bird species in proximity to the Development.
- 8.2.2 A stratified approach was taken when defining the desk study area, based on the likely zone of influence of the Development on birds and an understanding of the maximum distances typically considered by statutory consultees. Accordingly, the desk study identified any international nature conservation designations within 10 km of the Development Site boundary and other national statutory and local non-statutory nature conservations designations within 2 km of the Development Site boundary.
- 8.2.3 The desk study was carried out using the Scottish Natural Heritage (SNH) SiteLink website (<https://gateway.snh.gov.uk/sitelink/>) to identify nature conservation designations. A data request was submitted to the Highland Biological Recording Group (HBRG) on 04 August 2017 requesting all bird records within the desk study area.

### Consultation

- 8.2.4 A request for records of breeding or roosting raptor species within 2 km of the Development Site was submitted to the Highland Raptor Study Group (Highland RSG) on 07 August 2017. It was confirmed via email on 08 August 2017 that the Highland RSG held no information on breeding or roosting raptors within this search area, though they advised that it was expected that breeding by some species is likely to occur.

8.2.5 The Highland RSG were contacted again on 06 July 2018 to enquire about their knowledge of osprey *Pandion haliaetus* breeding in the Scots pine woodland north of Loch na Curra. Several sightings of this species at this location during the course of the breeding bird survey programme indicated that there may be a nest within this area of woodland. However, targeted searches failed to identify any nest sites (this is discussed further below). The Highland RSG responded via email on 09 July 2018 and confirmed that they had no knowledge of osprey breeding at this location.

### **Field Survey**

8.2.6 A variety of field survey methods were employed during the 2018 breeding season to target the range of breeding bird species for which suitable habitat exists at the Development Site. These are described in detail under the sub-headings below.

8.2.7 The following survey areas were used to assess the breeding bird assemblage at the Development and surrounding area. All buffers are based around the proposed footprint of infrastructure, excluding the stretch of public road between the junction with the C1064 and the point where it will be diverted through Dirr Wood as works here will be limited to resurfacing only and are not expected to result in any impacts to ornithological features:

- Common Bird Census (CBC) – all areas of grassland and woodland habitat within a 100 m buffer;
- Moorland breeding bird survey – all areas of blanket bog and heath habitat within a 100 m buffer;
- Breeding diver and grebe survey – 1 km buffer;
- Black grouse lek survey – 1.5 km buffer; and
- Breeding raptor survey – 2 km buffer.

8.2.8 All field survey was carried out by experienced ornithologists. All field surveyors held valid Schedule 1 survey licences issued by SNH.

### ***Common Bird Census***

8.2.9 A modified version of the common bird census technique described in Gilbert *et al* (1998; Ref 5) was adopted to survey all common breeding birds within the grassland and woodland habitats on-site. Five CBC survey visits were made between May and July, as shown in Table 8.2 below. Five visits was considered an adequate survey effort, rather than the ten visits prescribed by CBC methodology, to provide a reasonable indication of the numbers of breeding birds for the purposes of determining the bird assemblage and individual species which may potentially be affected by the Development. All surveys were carried out during favourable weather conditions of light winds (below Beaufort force 5) no continuous or heavy precipitation and good visibility. Surveys were carried out as far as possible in the morning, avoiding the period of one hour after sunrise.

**Table 8.2 Common Bird Census Survey Dates**

Date	Survey Visit Number	Start Time – End Time	Surveyor	Weather
01 May 2018	1	07:30 – 13:30	TP	Force 3 south-south-westerly winds, no precipitation and complete cloud cover. Temperatures to approximately 10°C.
02 May 2018	1	09:00 – 15:00	TP	Force 1 south-westerly winds, no precipitation and complete cloud cover. Cool, with temperatures to approximately 8°C.
03 May 2018	1	08:00 – 12:00	TP	Force 2 south-westerly winds, no precipitation and near complete cloud cover. Cool, with temperatures to approximately 8°C.
29 May 2018	2	06:30 – 12:00	SK	No wind or precipitation and complete cloud cover. Visibility restricted to between 200 m – 1 km. Temperatures to approximately 11°C.
30 May 2018	2	06:30 – 12:30	SK	No wind or precipitation and complete cloud cover. Visibility restricted to between 200 m – 1 km. Temperatures to approximately 11°C.
31 May 2018	2	06:10 – 10:30	SK	No wind or precipitation and complete cloud cover. Visibility restricted to between 200 m – 1 km. Temperatures to approximately 12°C.
18 June 2018	3	10:00 – 16:00	KC	Force 4 – 5 south-westerly winds, complete cloud cover but not precipitation.
20 June 2018	3	09:15 – 12:00	JW	Force 2 west-south-westerly winds, complete cloud cover and light intermittent rainfall. Temperatures to approximately 15°C.
21 June 2018	3	06:00 – 12:00	JW	Force 3 west-north-westerly winds, near clear skies and no precipitation. Temperatures to approximately 12°C.
02 July 2018	4	06:00 – 11:00	SK	Force 2 – 3 north-easterly winds, no precipitation and complete cloud cover. Temperatures to approximately 15°C.
03 July 2018	4	05:50 – 11:30	SK	Force 0 – 1 north-easterly winds, clear skies and no precipitation. Temperatures ranging from 13 – 25°C.
04 July 2018	4	06:00 – 11:45	SK	Force 1 – 2 south-westerly winds, partial cloud cover and no precipitation. Temperature ranging from 20 – 25°C.
25 July 2018	5	10:00 – 18:00	TP	Force 2 south-westerly winds, near clear skies and no precipitation. Temperatures to approximately 17°C.

Date	Survey Visit Number	Start Time – End Time	Surveyor	Weather
27 July 2018	5	08:00 – 12:00	TP	Force 1 south-westerly winds, near clear skies and no precipitation. Temperatures to approximately 19°C.

8.2.10 Pre-determined transect routes were walked by experienced ornithologists which allowed all parts of the survey area to be approached to within 50 – 100 m, depending upon the level of visibility afforded by the different habitat types (e.g. in the areas of semi-natural broadleaved woodland it was necessary to increase coverage when compared with open areas of grassland). Binoculars were used to scan all parts of the survey area and surveyors included regular stops to listen for singing or calling birds.

8.2.11 All of the birds observed, either by sight or sound, their locations and activity / behaviour were recorded on 1:10,000 scale Ordnance Survey (OS) field maps using standard British Trust for Ornithology (BTO) species codes and behaviour notation (Ref 5).

*Moorland Breeding Bird Survey*

8.2.12 Survey for breeding birds in the areas of heath and bog habitat within 100 m of infrastructure followed an adapted version of the Brown and Shepherd (1993; Ref 1) methodology for surveying upland waders. In line with recommendations made by Calladine *et al* (2009; Ref 3) four survey visits were made between May and July 2018, as shown in Table 8.3.

**Table 8.3 Moorland Breeding Bird Survey Dates**

Date	Survey Visit Number	Start Time – End Time	Surveyor	Weather
03 May 2018	1	13:00 – 16:00	TP	Force 3 south-westerly winds, complete cloud cover and no precipitation. Temperatures to approximately 8°C.
04 May 2018	1	13:00 – 15:00	TP	Force 4 south-westerly winds, partial cloud cover and no precipitation. Temperatures to approximately 13°C.
29 May 2018	2	16:00 – 21:00	TP	Force 1 westerly winds, partial cloud cover and no precipitation. Temperatures to approximately 16°C.
20 June 2018	3	12:00 – 17:00	JW	Force 2 west-south-westerly winds, near clear skies but intermittent light rain showers. Temperatures to approximately 15°C.
21 June 2018	3	12:00 – 14:30	JW	Force 2 west-north-westerly winds, partial cloud cover and no precipitation. Temperatures to approximately 12°C.
05 July 2018	4	10:20 – 17:00	JW	Force 2 – 3 south-westerly winds, near clear skies and no precipitation. Temperatures to approximately 21°C.

8.2.13 Pre-determined survey routes were devised which allowed surveyors to approach all parts of the survey area to within at least 100 m. Surveyors maintained a constant speed, covering 500 m<sup>2</sup> quadrats in 20 – 25 minutes. The route taken to walk the moorland

breeding bird survey transects was varied between survey visits. Stops were made at regular intervals to scan for birds and to listen for song and calls. Surveys were carried out between 08:00 and 18:00 (and on one occasion until 21:00 to record evening activity, in particular by waders such as curlew *Numenius arquata*). Surveys were conducted in favourable weather conditions and were not carried out during persistent rainfall or in winds exceeding approximately Beaufort force 4.

- 8.2.14 All bird species encountered were recorded and mapped on to a 1:10,000 scale OS field map using standard BTO notation, including a description of activity / behaviour. Where necessary, additional field notes were taken.

*Breeding Diver and Slavonian Grebe Survey*

- 8.2.15 Targeted searches were conducted for red-throated diver *Gavia stellata*, black-throated diver *Gavia arctica* and Slavonian grebe *Podiceps auritus*. The surveys were designed following the species-specific guidelines in Gilbert *et al* (1998; Ref 5). Two survey visits were made, one in late-May / early-June and one in July, as detailed in Table 8.4.

**Table 8.4 Breeding Diver and Grebe Survey Dates**

Date	Survey Visit Number	Surveyor
30 May 2018	1	KC
01 June 2018	1	KC
18 July 2018	2	TP
19 July 2018	2	TP

- 8.2.16 All waterbodies within the 1 km of proposed above-ground infrastructure were searched for the presence of divers and Slavonian grebe. Viewing was initially done from a distance using scope and binoculars to scan the surface of the water and the shoreline. In instances where no birds were observed on a waterbody, surveyors slowly approached and once satisfied that divers and/or grebes were absent, walked the entire perimeter to look for empty nest scrapes or signs that birds may have attempted to breed but had failed (e.g. broken eggshells or dead chicks). Any other notes of relevance, including the presence of disturbance sources and/or evidence of predators such as otter *Lutra lutra* and grey heron *Ardea cinerea* were also recorded.

- 8.2.17 If any divers or grebes were detected on a waterbody, their behaviour was observed, taking particular note of evidence that breeding may take place such as birds displaying, copulating or going ashore.

*Black Grouse Lek Survey*

- 8.2.18 Survey for lekking (displaying) black grouse *Tetrao tetrix* followed the methods described for this species in Gilbert *et al* (1998; Ref 5).

- 8.2.19 A preliminary survey visit was made to search for areas of habitat which could be used by lekking black grouse, including areas of woodland / moorland edge and openings within woodland. This survey was carried out on 11 April 2018 and all areas of suitable (and unsuitable) black grouse lek habitat were noted.

- 8.2.20 Three subsequent surveys were made on 18 April, 04 May and 10 May to search for lekking individuals in the areas of suitable habitat identified by the preliminary assessment. Surveys were conducted in dry and calm weather and commenced one hour before dawn and

continued until at least one hour after sunrise. Surveyors walked slowly, listening for lekking black grouse and scanning from suitable vantage point locations with binoculars. Where a lek was found, the number of males present was recorded, in addition to any females observed.

*Breeding Raptor Survey*

8.2.21 Survey for breeding raptor species listed on Schedule 1 of the WCA and / or Annex I of the Birds Directive was carried out in all areas of suitable habitat within 2 km of infrastructure associated with the Development. A total of four survey visits were made between April and July, as detailed in Table 8.5. Surveys were carried out during favourable weather conditions, in particular avoiding persistent heavy rainfall.

**Table 8.5 Breeding Raptor Survey Dates**

Date	Survey Visit Number	Start Time – End Time	Surveyor	Weather
09 April 2018	1	09:00 – 15:00	TP	Force 2 north-easterly winds, partial cloud cover and no precipitation.
09 April 2018	1	09:00 – 15:30	KC	Force 2 north-easterly winds, partial cloud cover and no precipitation.
10 April 2018	1	08:30 – 14:30	TP	Force 2 easterly winds, complete cloud cover but no precipitation.
10 April 2018	1	08:00 – 15:00	KC	Force 2 easterly winds, complete cloud cover but no precipitation.
13 April 2018	1	08:00 – 11:30	TP	No wind, complete cloud cover with light to heavy persistent rain.
13 April 2018	1	07:45 – 11:30	KC	No wind, complete cloud cover with light to heavy persistent rain.
18 April 2018	1	08:05 – 11:00	KC	Force 2 southerly winds, partial cloud and no precipitation. Temperatures to approximately 10°C
08 May 2018	2	08:00 – 11:00	KC and TP	Force 2 south-westerly winds, complete cloud cover but no precipitation.
09 May 2018	2	10:00 – 16:00	KC	Force 4 south to south-westerly winds, with no precipitation.
10 May 2018	2	05:30 – 10:30	KC	Force 4 southerly winds, complete cloud cover and heavy intermittent rain showers.
11 May 2018	2	07:00 – 13:00	KC	Force 5 southerly winds, complete cloud cover and no precipitation.
08 June 2018	3	09:00 – 14:00	KC and TP	Force 1 north-westerly winds, near clear skies and no precipitation. Temperatures reaching 23°C.
14 June 2018	3	14:00 – 18:30	KC	Force 5 – 6 westerly winds with intermittent heavy rain becoming persistent towards survey end. Survey finished in response to adverse weather conditions.

Date	Survey Visit Number	Start Time – End Time	Surveyor	Weather
05 July 2018	4	12:00 – 19:00	TP	Force 1 winds and near clear skies. No precipitation and warm, with temperatures to 20°C.
06 July 2018	4	11:00 – 18:00	TP	Force 1 westerly winds, near clear skies and no precipitation. Warm, with temperatures to 22°C.

8.2.22 During the preliminary visits, all habitat within the survey area which could be suitable for nesting by raptor species (e.g. areas of deep heather, rocky crags or other areas of dense vegetation) were searched for signs of occupancy. This involved a walkover of the survey area, with short vantage point watches being made from suitable locations to observe birds and any behaviour indicative of breeding (e.g. displaying / alarm calling.). All raptor species encountered were recorded and mapped on to 1:25,000 scale OS maps. Any suspected or confirmed nest sites were also described and accurately mapped.

8.2.23 During subsequent survey visits, the species-specific methodologies described in Hardey *et al* (2013) were used to target areas in which raptors had been previously encountered (including during the course of other field survey) to establish and monitor the breeding success of those birds where nesting was suspected or confirmed. Extended vantage point watches were made from a suitable distance so as to avoid disturbance. Observations of activity and behaviour were made and the numbers of chicks / fledged birds noted where possible.

### **Territory Analysis**

5.1.1 Although they involve slightly different methodologies, the results of CBC and moorland breeding bird survey provide comparable information relating to the presence of birds on-site. The results of both surveys were therefore combined to determine breeding activity and to estimate territorial locations of protected and notable species, which for the purposes of this assessment were considered to be:

- Qualifying features of European designated sites within 10 km (or further where connectivity exists) of the Development;
- All species listed on Annex I of the Birds Directive;
- All species listed on Schedule 1 of the WCA;
- Species listed on the SBL;
- All species on the Inverness and Nairn LBAP;
- All species on the Red and Amber lists of Birds of Conservation Concern; and
- Invasive non-native bird species listed on Schedule 9 of the WCA (although this no longer legally applies in Scotland) and those considered to be of European Union (EU) concern under the Invasive Alien Species Regulation.

5.1.2 On this basis, species on the Green list of Birds of Conservation Concern were excluded from territory analysis, except in those few cases where a Green-listed passerine species is nevertheless listed on Schedule 1 of the WCA. Furthermore, although they qualify as being notable through their listing on the SBL or Amber list of BoCC, or by being Priority Species of the Inverness and Nairn LBAP, the following species were excluded from territory

analysis on the basis that they are all very common and widespread and were abundant across the survey area:

- Dunnock *Prunella modularis*;
- Meadow pipit *Anthus pratensis*;
- Siskin *Carduelis spinus*;
- Skylark *Alauda arvensis*; and
- Willow warbler *Phylloscopus trochilus*.

5.1.3 ArcGIS 10.5.1 software was used to digitise and collate all observations made during the CBC and moorland breeding bird survey visits. One or more records of territorial behaviour (e.g. singing, displaying or alarming, or the finding of nests or dependent young) was assumed to indicate a possible or probable occupied breeding territory, in accordance with BTO evidence codes. In line with the methods adopted by Calladine *et al* (2009; Ref 3), simultaneous registrations of waders were used to identify different territories. Where this was not possible, a distance of 500 m between observations of the same species made on the same survey visit was assumed to indicate birds occupying different territories. This distance was increased to 1,000 m for observations made on different visits. For passerines, obvious clusters of records were used to help identify breeding territories, taking into consideration the relevant ecologies of the species in question and using professional judgement.

## 8.3 Results

### Desk Study

8.3.1 There are three statutory designated sites within the desk study area for which bird species are qualifying species and/or notified features. These are described in Table 8.6, listed in descending order, with those closest to the Development Site appearing first.

**Table 8.6 Statutory Designated Sites in Proximity to the Development**

Designation	Reason(s) for Designation	Relationship to the Development
Loch Ashie SPA and Site of Special Scientific Interest (SSSI)	Designated for its pre- and post-breeding population of Slavonian grebe, with the loch supporting between 30 – 60 individual birds during the autumn moult period. This makes it the most important known moult site for this species in Scotland.	Loch Ashie is situated approximately 145 m north-west of the closest point of the Headpond Embankment. However, there is a strip of woodland along the Development Site boundary which provides screening to the loch and which may reduce the risk of disturbance being caused to any birds present. There is no apparent aquatic connectivity between the Development Site and Loch Ashie. Part of the Headpond is located within the catchment of Loch Ashie and there is a possibility of pollutants (including silt) from construction activity reaching the waterbody. This has been subject to an Appropriate Assessment.

Designation	Reason(s) for Designation	Relationship to the Development
Loch Ruthven SPA, Wetland of International Importance (Ramsar site) and SSSI	Loch Ruthven is designated as a SPA and Ramsar site as it supports approximately 18 % of the British population of breeding Slavonian grebe. Breeding Slavonian grebe are also a notified feature of the SSSI, in addition to the general breeding bird assemblage which includes fifteen species of aquatic birds.	Loch Ruthven is situated approximately 4.5 km south-east of the Development. There is no direct surface water connectivity between the Development Site and Loch Ruthven.
North Inverness Lochs SPA	Contains five lochans which support breeding Slavonian grebe.	The SPA is situated approximately 8.5 km west of the Development, on the opposite side of Loch Ness. Slavonian grebe does not leave the nesting loch during the breeding season and so there is no connectivity between the SPA and the Development.

8.3.2 A single bird record was returned by HBRG in response to the data request submission. This was of a red kite *Milvus milvus* made in 2003 at Ashie Moor.

### **Field Survey**

#### *Common Bird Census and Moorland Breeding Birds*

8.3.3 A total of 79 species were recorded during common bird census and moorland breeding bird survey. The full list of species recorded is provided in Table 8.7, below.

Of the 79 species recorded, 44 were considered to be notable based on the criteria above. Territory analysis was carried out on these species (with the exception of those excluded, as described in paragraph 5.1.2) and a total of 26 species were considered to have held territories within the survey area in 2018.

**Table 8.7 Results of Common Bird census and Moorland Breeding Bird Survey**

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Barn owl <i>Tyto alba</i>	Schedule 1 of WCA, SBL, Inverness and Nairn LBAP Priority Species	0	0	Single record was of a bird flushed from a non-breeding roost.
Blackbird <i>Turdus merula</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Blackcap <i>Sylvia atricapilla</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Black-headed gull <i>Chroicocephalus ridibundus</i>	SBL, Inverness and Nairn LBAP Priority Species	0	0	No breeding recorded within survey area.
Black-throated diver	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species, BoCC Amber list	0	0	No breeding recorded within survey area.
Blue tit <i>Cyanistes caeruleus</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Bullfinch <i>Pyrrhula pyrrhula</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Amber list	6	1	Spread across semi-natural broadleaved and coniferous plantation woodland.
Buzzard <i>Buteo buteo</i>	-	-	-	No evidence of breeding within survey area (however see further below for more information relating to targeted raptor surveys).
Carrion crow <i>Corvus corone</i>	-	-	-	Likely to breed within survey area.
Chaffinch <i>Fringilla coelebs</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Chiffchaff <i>Phylloscopus collybita</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Coal tit <i>Periparus ater</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Common gull <i>Larus canus</i>	BoCC Amber list	0	0	No breeding recorded within survey area.
Common redstart <i>Phoenicurus phoenicurus</i>	BoCC Amber list	1	1	Breeding confirmed in semi-natural broadleaved woodland near Loch Ness by presence of fledgling. Possible territory near Compound 1.
Common sandpiper <i>Actitis hypoleucos</i>	-	1	0	One probable territory on shore of Loch Ness.
Common snipe <i>Gallinago gallinago</i>	Inverness and Nairn LBAP Priority Species	0	4	Two possible territories on Ashie Moor, one at Glaic na Ceardaich and one adjacent to Loch Ashie.
Crested tit <i>Parus cristatus</i>	Schedule 1 of WCA, Inverness and Nairn LBAP Priority Species	0	1	Single record assumed on a precautionary basis to be a territory.
Crossbill <i>Loxia</i> sp.	Schedule 1 of WCA <sup>1</sup>	11	34	Territory analysis difficult due to species ecology but present throughout coniferous woodland.
Cuckoo <i>Cuculus canorus</i>	SBL, BoCC Red list	0	2	One near Park and one in coniferous woodland near Headpond.
Curlew	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	0	4	Three on Ashie Moor and one to south-east of Loch Ashie.

<sup>1</sup> Note, common crossbills *Loxia curvirostra* are protected by Schedule 1 of the WCA. Both Scottish crossbill *Loxia scotica* and parrot crossbill *Loxia pytyopsittacus* are also of principal importance for conservation in Scotland through their presence on the SBL, are Priority Species of the Inverness and Nairn LBAP and are Amber-listed BoCC. However, it is very difficult in the field to distinguish between these species so it has been assumed that crossbills present on site are all *Loxia curvirostra*.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Dipper <i>Cinclus cinclus</i>	BoCC Amber list	0	1	Recorded only on one occasion. Pair in suitable habitat likely to be breeding.
Dunnock	BoCC Amber list	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Garden warbler <i>Sylvia borin</i>	-	-	-	Single record of bird in song.
Goldcrest <i>Regulus regulus</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Golden plover <i>Pluvialis apricaria</i>	Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species	0	0	Single record of a bird in June.
Goldfinch <i>Carduelis carduelis</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Goosander <i>Mergus merganser</i>	Inverness and Nairn LBAP Priority Species	0	0	Two females present on Loch Ness on one occasion.
Great spotted woodpecker <i>Dendrocopos major</i>	-	-	-	Likely to breed within survey area.
Great tit <i>Parus major</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Greenfinch <i>Chloris chloris</i>	-	-	-	Two records.
Green woodpecker <i>Picus viridis</i>	-	-	-	Two records.
Grey heron	-	-	-	Single record, no breeding recorded within survey area.
Greylag goose <i>Anser anser</i>	Inverness and Nairn LBAP Priority Species, BoCC Amber list	0	0	No evidence of breeding within survey area.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Herring gull <i>Larus argentatus</i>	SBL, BoCC Red list	0	0	No evidence of breeding within survey area.
Hooded crow <i>Corvus Cornix</i>	-	-	-	Small number of records. May breed within survey area.
House martin <i>Delichon urbica</i>	Inverness and Nairn LBAP Priority Species, BoCC Amber list	N/A	N/A	Not a territorial species but breeding confirmed at Balnafoich.
Jackdaw <i>Corvus monedula</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Jay <i>Garrulus glandarius</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Kestrel <i>Falco tinnunculus</i>	SBL	0	0	No evidence of breeding within survey area (however see further below for more information relating to targeted raptor surveys).
Lapwing <i>Vanellus vanellus</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	1	2	Probable territory in agricultural grassland near Kindrummond. Two possible territories, one in same area near Kindrummond and one at Loch na Curra.
Lesser redpoll <i>Carduelis cabaret</i>	SBL, BoCC Red list	2	18	Breeding confirmed by presence of fledgling in Headpond area. All other territories spread across survey area.
Linnet <i>Carduelis cannabina</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	1	2	All around gorse <i>Ulex europaeus</i> scrub on Ashie Moor.
Long-tailed tit <i>Aegithalos caudatus</i>	-	-	-	Three records but may breed within survey area.
Mallard <i>Anas platyrhynchos</i>	BoCC Amber list	0	2	Possible breeding on Loch Ness and Loch na Curra.
Meadow pipit <i>Anthus pratensis</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Mistle thrush <i>Turdus viscivorus</i>	BoCC Red list	6	1	Breeding confirmed in give locations across coniferous plantation woodland by observation of fledglings.
Osprey	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species, BoCC Amber list	0	0	No evidence of breeding within survey area (however see further below for more information relating to targeted raptor surveys).
Oystercatcher <i>Haematopus ostralegus</i>	BoCC Amber list	3	0	On the shore of Loch Ness, in agricultural grassland near Kindrummond and on south side of Loch Ashie.
Peregrine <i>Falco peregrinus</i>	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species	0	0	No evidence of breeding within survey area (however see further below for more information relating to targeted raptor surveys).
Pheasant <i>Phasianus colchicus</i>	-	-	-	Small number of records. May breed within survey area.
Pied wagtail <i>Motacilla alba</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Raven <i>Corvus corax</i>	-	-	-	No evidence of breeding within survey area.
Red grouse <i>Lagopus lagopus</i> subsp. <i>scotica</i>	SBL	1	2	All on Ashie Moor, near to C1064.
Red kite	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species	0	0	No evidence of breeding with survey area.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Red-throated diver	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species	1	0	Breeding confirmed on Loch na Curra.
Reed bunting <i>Emberiza schoeniclus</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Amber list	0	2	Adjacent to Loch na Curra and Loch Ashie.
Robin <i>Erithacus rubecula</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Siskin	SBL	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Skylark	Inverness and Nairn LBAP Priority Species, BoCC Red list			
Slavonian grebe	Schedule 1 of WCA, Annex I of Birds Directive, SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	0	0	No evidence of breeding within survey area.
Song thrush <i>Turdus philomelos</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	22	26	Breeding confirmed in eight locations. Territories distributed across the survey area in a range of habitats.
Sparrowhawk <i>Accipiter nisus</i>	-	0	0	No evidence of breeding within survey area (however see further below for more information relating to targeted raptor surveys).
Spotted flycatcher <i>Muscicapa striata</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	2	4	Confirmed breeding on edge of Dirr Wood. All other possible and probable territories in semi-natural broadleaved woodland.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Starling <i>Sturnus vulgaris</i>	SBL, BoCC Red list	0	5	Across lower lying parts of the Development Site.
Stonechat <i>Saxicola rubicola</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Swallow <i>Hirundo rustica</i>	Inverness and Nairn LBAP Priority Species	-	-	May use buildings within survey area for breeding.
Swift <i>Apus apus</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Amber list	-	-	May use buildings within survey area for breeding.
Tawny owl <i>Strix aluco</i>	BoCC Amber list	1	1	Probable breeding territory in conifer plantation to east of Headpond. Possible territory to south-east of Headpond.
Teal <i>Anas crecca</i>	-	1	-	Confirmed breeding on Loch na Curra.
Treecreeper <i>Certhia familiaris</i>	-	-	-	Territory analysis not carried out but may breed within survey area.
Tree pipit <i>Anthus trivialis</i>	SBL, BoCC Red list	24	5	Predominantly located in conifer plantation and amongst semi-natural mixed broadleaved / conifer woodland at Glais na Ceardaich.
Tufted duck <i>Aythya fuligula</i>	-	-	-	Pair recorded on one occasion on Loch na Curra.
Wheatear <i>Oenanthe oenanthe</i>	-	-	-	Single record.
Whinchat <i>Saxicola rubetra</i>	BoCC Red list	1	0	On Ashie Moor.
Willow warbler	BoCC Amber list	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Wren <i>Troglodytes troglodytes</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.
Woodpigeon <i>Columba polumbus</i>	-	-	-	Territory analysis not carried out but highly likely to breed within survey area.

Species	Conservation designation(s)	Number of probable breeding territories within survey area	Number of possible breeding territories within survey area	Comment
Yellowhammer <i>Emberiza citrinella</i>	SBL, Inverness and Nairn LBAP Priority Species, BoCC Red list	1	1	In agricultural areas near Kindrummond / Balnafoich.

### Red List Passerines

- 8.3.4 Amongst the less common and more notable of the recorded Red-listed bird species is spotted flycatcher, of which five assumed territories were found in the ancient broadleaved woodland above Loch Ness. An additional likely territory was also found at an opening in the conifer plantation near Ashie Moor, but otherwise this species was not found in the conifer plantation, and was generally confined to the ancient broadleaved woodland. The density of spotted flycatcher in the ancient broadleaved woodland was approximately one territory per 6 ha, and this density is likely to apply to the ancient broadleaved woodland in general since it is similar in character throughout.
- 8.3.5 Also notable amongst the Red-listed species is tree pipit. In total, 29 assumed territories were found, of which 11 were in the Headpond area in the open moorland strip along the C1064, ten in the conifer plantation along rides and other openings (including felled areas), eight in the Glaic na Ceardaich unmanaged open area (not affected by the Development), and two at the south-western edge of the survey extent (in an area also not affected by the Development).
- 8.3.6 One assumed territory of whinchat was found in the far south of the survey extent in the wet valley near the C1064. However, this area is now unaffected by the Development.
- 8.3.7 Two cuckoo territories were presumed to be present within the survey area, one near to Balnafoich and one within the conifer plantation adjacent to the Headpond.
- 8.3.8 In total, 20 assumed territories of lesser redpoll were widely dispersed across the survey extent, mainly on the higher ground and mostly in the conifer plantation or the Glaic na Ceardaich unmanaged area. Six assumed territories are in areas that are likely to be lost to the Headpond or compounds.
- 8.3.9 Other recorded Red list species comprised those that, both locally and in Scotland as a whole, are widespread and not uncommon, namely: starling, linnet, mistle thrush, song thrush and yellowhammer. In total, 48 assumed song thrush territories were recorded throughout all types of woodland, whilst seven mistle thrush territories were noted and these were all in conifer plantation. The three linnet territories were on Ashie Moor in the vicinity of gorse, one of their favoured nesting habitats. The two yellowhammer territories were, as would be expected, in agricultural areas in the west of the survey area. Starlings were restricted to the lower elevations of the survey area.

### Schedule 1 Passerines

- 8.3.10 Two Schedule 1 passerines (that are not afforded Red list or Amber list status) were recorded: crested tit and crossbill.
- 8.3.11 Crested tit is a notable species in the UK, its breeding range being highly restricted to certain parts of the Scottish Highlands, including areas near Inverness. There was one record of crested tit during the bird surveys. On a precautionary basis, and since it was located in possible suitable breeding habitat in the part of the conifer plantation near Ashie Moor, this has been treated as a possible territory.
- 8.3.12 Crossbill was recorded on numerous occasions across the conifer plantation, both during the bird surveys and on other Development Site visits. Common crossbill is common across Scotland, but is difficult to separate from Scottish crossbill, which is largely confined to the Scottish Highlands, and the rarer parrot crossbill, confined as a breeding species also to certain parts of the Scottish Highlands including near Inverness. In total, 46 possible or probable crossbill territories were identified. Determining crossbill territories is difficult

because they nest semi-colonially, forage over significant areas, and it is often difficult to see the birds and in particular the nests. Therefore it is not known whether nests occur in the conifer plantation, but this is considered highly likely given the high suitability of mature Scots pine plantation and frequency of crossbill records.

#### Amber List Passerines

- 8.3.13 The recorded Amber list species comprise those that, despite inclusion on the Amber list, are common and widespread in Scotland and the local area. The most notable was common redstart, one territory of which was identified at the edge of the ancient broadleaved woodland above Loch Ness, and one in the conifer plantation. The other recorded Amber-listed species, all common and widespread, were: bullfinch, dipper, dunnock, house martin, mallard, red grouse, tawny owl, reed bunting and willow warbler.

#### Waders

- 8.3.14 The highest concentration of wader territories was on Ashie Moor and adjacent agricultural fields. Two Red-listed waders were recorded here, curlew and lapwing. Excluding the distant curlew record by Loch Ashie, there were three assumed curlew territories: two on Ashie Moor and one on the agricultural fields to the west of Ashie Moor. The same agricultural fields held two assumed lapwing territories, and a third was located at the south end of Loch na Curra. The same agricultural fields also held an oystercatcher (Amber list) territory, and there were two snipe (also Amber list) territories on Ashie Moor / by Loch na Curra.
- 8.3.15 Elsewhere, there were distant snipe territories in the Glaic na Ceardaich unmanaged area and by Loch Ashie, two oystercatcher territories beside Loch Ashie and Loch Ness, one curlew territory on moorland near Loch Ashie, and one common sandpiper territory by Loch Ness (all except the Amber-listed common sandpiper were located beyond likely disturbance).

#### *Divers and Slavonian Grebe*

- 8.3.16 A total of ten waterbodies were identified within the breeding diver and Slavonian grebe survey area. The following were discounted from further survey on the basis of being unsuitable for these species:
- Ashie Lochan – this waterbody is very small and closely surrounded by dense conifer plantation. It also completely dried out during the field survey period;
  - Glaic na Ceardaich Pond – this very small waterbody is situated in dense forestry and is situated close to a forestry track. It was assessed as being more like a swamp than a waterbody and there was no open water during the breeding season;
  - Dirr Wood Pond – this waterbody is situated in dense plantation woodland and completely dried out during the 2018 breeding season; and
  - Lochview Lochan – there was no trace of any water at this location and it is possible the waterbody may have been drained in recent years. It is very close to houses and a public road and is trampled by livestock.
- 8.3.17 The remaining waterbodies presented some suitability for divers and grebes, for nesting, foraging and / or displaying. A brief description of each is provided in Table 8.8.

**Table 8.8 Waterbody Descriptions**

<b>Waterbody</b>	<b>Relationship to Development</b>	<b>Description of Suitability for Divers and Slavonian Grebe</b>
Loch Ashie	Approximately 145 m north-west of the closest point of the Headpond Embankment.	The majority of the shoreline of Loch Ashie is unsuitable for divers and Slavonian grebe, being rocky and having very limited emergent vegetation. A small natural island is particularly suitable for black-throated diver nesting.
Loch na Curra	Approximately 230 m from the location where the minor public road diversion will commence.	This waterbody has peaty banks dominated by heather <i>Calluna vulgaris</i> but these are regularly too steep to support diver or grebe nests. The southern end of the lochan is dominated by bottle sedge <i>Carex rostrata</i> and is suitable for nesting by divers and Slavonian grebes. A pair of red-throated divers is known to have nested in this area and successfully fledged one chick in 2017.
Lochan an Eoin Ruadha	Approximately 310 m from the closest point of the Headpond Embankment, with intervening woodland habitats.	Lochan an Eoin Ruadha is a large waterbody, with a surface area of approximately 186,000 m <sup>2</sup> (0.186 km <sup>2</sup> ). It likely contains a significant fish resource and divers have been recorded on this waterbody foraging on several occasions. It is generally unsuitable for nesting divers and grebes as it has a very rocky shoreline and is bounded extensively by dense woodland. It is also likely to be regularly used by potential predators and an otter was flushed from the bank of the loch during the diver and grebe survey on 30 May.
Loch Ness	An inlet / outlet structure will be constructed on the bank of Loch Ness, with associated infrastructure immediately adjacent.	An extremely large waterbody which may be used by red-throated diver, black-throated diver and Slavonian grebe (prior to or following nesting) for foraging and displaying. The shoreline within 1 km of the Development is pebbly and in places subject to high levels of human disturbance (e.g. from the nearby fish farm). It is therefore of very low suitability for nesting by divers and Slavonian grebe.
Loch Duntelchaig	Approximately 1 km south-east of the Headpond.	Loch Duntelchaig is a very large waterbody which is likely to be used by red-throated divers and black-throated divers for foraging and displaying. It is also known to be used by Slavonian grebes during the pre-breeding and post-breeding periods. The habitat within the survey area, however, is unsuitable for nesting by any of these species.
Park Pond	The nearest above-ground infrastructure associated with the Development will be the diverted public road, approximately 600 m east.	Small to medium-sized waterbody of artificial origin, having obvious linear earthworks at the south end to retain water. Much of the bank is unsuitable for nesting by divers due to the presence of dense gorse scrub, though there are small areas with banks suitable for nesting. Line of sight is constrained by topography which further reduces suitability of waterbody for nesting divers. There is very little emergent vegetation and it is therefore considered unsuitable for nesting by Slavonian grebe.

8.3.18 Red-throated divers were recorded on six occasions during the course of the breeding bird survey programme, as outlined in Table 8.9.

**Table 8.9 Red-throated Diver Observations**

Date	Number of Birds	Description of Observation
09 April 2018	2	Pair of red-throated divers recorded incidentally fishing on Loch Duntelchaig during breeding raptor survey.
08 May 2018	2	Pair of red-throated divers present on Loch na Curra during early morning black grouse lek survey.
30 May 2018	1	<b>Adult bird flushed from nest which contained two eggs.</b>
30 May 2018	1	Single adult fishing in middle of Lochan an Eoin Ruadha.
18 July 2018	1	Pair of red-throated divers on Loch na Curra at 12:30. These birds were disturbed by children on a dinghy and had departed by 14:30.
25 July 2018	2	Two red-throated divers heard calling from Loch na Curra (but not seen) during CBC survey.

8.3.19 A single red-throated diver nest was confirmed in 2018 on the west side of Loch na Curra. An adult bird was flushed from the nest during the diver survey on 30 May and two eggs were found to be present. The nest was surveyed again on 08 June (during a breeding raptor survey) and was found to still be occupied. However, subsequent surveys of this waterbody (including a check made during a breeding raptor survey on 05 July) confirmed that the nest had failed and no second clutch was laid.

8.3.20 Black-throated divers were recorded on six occasions during the course of the breeding bird survey programme. A description of the black-throated diver records made at the Development Site is provided in Table 8.10 below.

**Table 8.10 Black-throated Diver Observations**

Date	Number of Birds	Description of Observation
13 April 2018	2	Pair recorded incidentally on Loch a' Chlachain to the west of Loch Duntelchaig during breeding raptor survey. This is more than 3.5 km from the nearest infrastructure and outside of the breeding diver survey area.
01 May 2018	1	Single bird incidentally recorded calling from Loch Ashie during CBC survey.
01 June 2018	2	Pair fishing on Loch Ashie.
18 July 2018	2	Pair on Lochan an Eoin Ruadha at 13:45 flew towards Loch Duntelchaig at 14:00. This same pair then observed on Loch Duntelchaig at 15:30.
19 July 2018	2	Single adult black-throated diver loafing on Lochan an Eoin Ruadha.
19 July 2018	1	Single bird flying low (less than 2 m) over Loch Ness in a south-west direction.

8.3.21 Despite walking the shorelines of all waterbodies within the survey area, no evidence of black-throated diver breeding was noted during the 2018 breeding season and, despite suitable nesting habitat being present, it is concluded that this species did not breed within 1 km of the Development.

8.3.22 Slavonian grebes were observed on only three occasions during the early part of the 2018 breeding season. On 09 April four individuals were recorded on Loch Duntelchaig, including two birds displaying together. A single bird was also observed during breeding raptor survey on Loch a' Chlachain on 13 April 2018. This is beyond the 1 km search area for this species. The final observation was made during CBC survey on 03 May when a pair was recorded on Loch na Curra.

8.3.23 No further observations of Slavonian grebe were made after this date and it is concluded that no breeding occurred within the survey area.

*Black Grouse*

8.3.24 Black grouse were incidentally recorded on two occasions during the 2018 breeding bird survey programme. A single bird was flushed from the edge of Dirr Wood, within the footprint of the Headpond, during the preliminary black grouse habitat assessment on 11 April. A male was flushed from Drumashie Moor, near to a lek site at this location, on 08 June. In addition, although outside of the 2018 breeding season, two male black grouse were also flushed from a tree in the Headpond area on 26 September 2017.

8.3.25 Displaying black grouse were recorded on four occasions, at a minimum of three lek sites. A description of the leks is provided in Table 8.11.

**Table 8.11 Black Grouse Leks**

Date	Location	Description
18 April 2018	Drumashie Moor	The location of this lek is approximate only. One male and two females were present. One female left heading north-east at 07:37. The second female departed flying south for 300 m at 07:41, followed by the male bird. Both were out of sight but display calls could be heard.
04 May 2018	Drumashie Moor	A single male was first seen lekking at 05:20 and was last observed at 05:45. Other black grouse droppings found nearby once the male bird had departed may have been from unseen females.
10 May 2018	South of Loch Duntelchaig	A single male was heard lekking but not seen at 06:22.
10 May 2018	Drumashie Moor	A single male was heard lekking but not seen at 07:31.

8.3.26 The lekking birds identified on Drumashie Moor on 04 May and 10 May were present in the same vicinity and, because the bird detected on 10 May was heard only and not seen, it is possible that these records relate to a single lek site.

*Raptors*

8.3.27 The following target raptor species (i.e. those listed on Schedule 1 of the WCA and /or on Annex I of the Birds Directive) were recorded at the Development Site:

- Barn owl;
- Hen harrier *Circus cyaneus*;
- Red kite;
- Peregrine; and
- Osprey.

- 8.3.28 In addition, kestrel, sparrowhawk and buzzard, which do not receive special protection beyond that afforded to all breeding birds, were also all recorded during the breeding bird survey programme.
- 8.3.29 A barn owl roost was found in a mature oak *Quercus* sp. near Ach-na-Sidhe B&B when a single bird was flushed from the tree during moorland breeding bird survey in this area on 30 May. There was no evidence that this location was used for breeding in 2018 and no barn owls were recorded during the remainder of the survey programme.
- 8.3.30 Hen harriers were observed on three dates during the breeding bird survey programme. The first record was an incidental sighting on 09 May of a male hunting over open moorland near Drumashie, more than 5 km north-east of the Development. A female was observed on 06 July flying high above the moorland south of Easter Erchite, approximately 2.5 km from the nearest proposed infrastructure. Finally, a male was recorded hunting over the blanket bog to the south of Loch na Curra on 18 July. A 'ringtail' (a bird with the plumage of an adult female or a juvenile (although not of a recently fledged bird)) was observed displaying over forestry to the east of Ach-na-Sidhe B&B on the same date.
- 8.3.31 There was no evidence of hen harrier breeding within 2 km of the Development in 2018. However, suitable habitat for nesting does exist within this area, including in areas of blanket bog where suitable dense vegetation cover exists.
- 8.3.32 Red kite was first observed on 09 April when a single individual was recorded flying in a southerly direction over Ashie Moor, past Loch na Curra. A pair of red kites was also observed above suitable breeding woodland just north of Loch Ashie on 10 April and a nest which could be used by this species was identified at this location. This nest was checked on subsequent survey visits and was unoccupied during the breeding season. A single bird was observed in flight at Loch na Curra on 23 April whilst undertaking great crested newt *Triturus cristatus* survey. This bird flew in the direction of Lochan an Eoin Ruadha.
- 8.3.33 There was no evidence of breeding by red kite within the raptor survey area and it is concluded that this species did not nest within 2 km of the Development in 2018.
- 8.3.34 A female peregrine was recorded alarm calling from the top of a larch tree *Larix* spp. at Tor Point, west of Dores, on 09 April. No further records of peregrine were made in this area during the course of the breeding raptor surveys. The only other record of peregrine within 2 km of the Development was of a single bird in flight over Loch na Curra on 05 July.
- 8.3.35 A peregrine nest site was identified approximately 4 km from the Development and outside of the raptor survey area. The precise location of the nest is provided in Confidential Appendix 8.1. Three chicks were seen to be present in the nest on 08 June, and a food delivery was noted. By the time of the next survey on 05 July, fledging had occurred and two juveniles were observed in the area around the nest site. It is believed that the third chick, which was small relative to the others, did not survive to fledging.
- 8.3.36 Ospreys were observed on numerous occasions during the 2018 breeding season, flying over the Development Site and fishing on waterbodies including Loch na Curra, Lochan an Eoin Ruadha and Loch Ness.
- 8.3.37 Several observations were made of ospreys displaying breeding behaviour within the survey area, including individuals carrying nesting material and fish. In addition, birds were observed during the early part of the breeding season sitting in suitable nest structures in trees on Drumashie Moor, on the shore of Loch Ness north of Dores and just north of Park. However, subsequent monitoring of these locations confirmed that they were not used by osprey for breeding and no other nest sites were identified within survey area. It is therefore

concluded that osprey did not nest within 2 km of the Development in 2018 but that this species regularly used the waterbodies on-site for foraging.

- 8.3.38 A single active osprey nest was identified outside of the breeding raptor survey area, approximately 4.5 km north-east of the Headpond location. Monitoring of this nest confirmed that three chicks successfully fledged. The location of the nest site is provided in Confidential Appendix 8.1 (Volume 6).
- 8.3.39 Kestrels were recorded frequently during the 2018 breeding season and a single nest site was identified in a nest box fixed to a tree approximately 2.2 km from the Headpond. On checking this feature on 08 June, five kestrel chicks were found to be present. On 05 July this box was empty and it is assumed that at least some of the young successfully fledged. Although not considered to be a species which is particularly susceptible to persecution given that the nest box used by kestrels in 2018 could also be used by barn owl, its location is given in Confidential Appendix 8.1 (Volume 6).
- 8.3.40 Sparrowhawks were observed on several occasions during the 2018 breeding season and plucked kills were located across the Development Site. Breeding was not confirmed but may have taken place within the survey area. A cluster of three nests believed to belong to sparrowhawk were found in woodland just south of Park, in addition to a plucking post. Two of the nests were assessed as being old but one was more recent. There was, however, no evidence such as splashing to suggest that the more recently used nest had been occupied in 2018.
- 8.3.41 Buzzards were regularly encountered and observations of display behaviour were indicative of potential breeding in a number of woodland areas. However, only a single nest was confirmed at Creag nan Clach, outside of the raptor survey area. An incubating bird was observed on 08 May and observations made during the diver survey of 18 July confirmed that two young had successfully fledged.

## 8.4 References

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