



# Technical Appendix 8.1 Baseline Bird Survey Report

Carnaig 400 kV Substation

PREPARED FOR  
SSEN Transmission

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# Technical Appendix 8.1 Baseline Bird Survey Report

## Carnaig Substation

0699566

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## ACRONYMS AND ABBREVIATIONS

Acronym	Description
BoCC	Birds of Conservation Concern. A list of birds' conservation status, reviewed every five years, measured by changes to changes in species population size.
BTO	British Trust for Ornithology.
CRH	Collision Risk Height. The band of height at which a bird is at risk from colliding with the feature under assessment.
NS	NatureScot (previously, Scottish Natural Heritage).
OHL	Overhead power line.
SBL	Scottish Biodiversity List. A list of habitats and species identified for specific conservation action.
S1 birds	Schedule 1-listed birds. Birds afforded additional protection under the WCA.
WCA	The Wildlife and Countryside Act (as amended), Scotland, 1981.

## 1. INTRODUCTION

This report summarises the results of surveys undertaken to provide information on the baseline bird assemblage in the location of the proposed new 400 kV Carnaig Substation.

Surveys covered both the footprint of the proposed substation and land immediately connected to it, which will be required for the development of associated project components, hereafter referred to in total as the Proposed Development. The Proposed Development forms part of a wider grid reinforcement project to reinforce the electricity transmission network between Beauly Substation and the existing Loch Buidhe Substation and the need to create new electricity transmission between Loch Buidhe Substation and the proposed Banniskirk Substation. A new 400 kV overhead line (OHL) will connect Banniskirk (Spittal) and Fanellen (Beauly) with the Proposed Development. The OHL, Banniskirk Substation and Fanellen Substation are being progressed through separate consents.

### 1.1 SURVEY AREA

The area surveyed varied depending on the specific survey being undertaken. Specific survey areas are set out under the appropriate methods sections below.

## 2. METHODS

### 2.1 SURVEY METHODS

Based on the location and nature of the Proposed Development and the desk-based review of available information, the following bird surveys were conducted:

- Flight activity surveys;
- Breeding bird surveys;
- Raptor surveys;
- Breeding diver, duck and grebe surveys;
- Woodland grouse surveys;
- Winter raptor roost surveys; and
- Winter goose roost surveys.

The following sections set out the survey methods for each of these surveys, together with the approach taken to identify survey areas for each type of survey. Surveys were carried out by sub-consultants Direct Ecology Limited and Atmos Consulting Limited.

#### 2.1.1 FLIGHT ACTIVITY (VP) SURVEYS

Flight activity surveys from vantage points (VPs) were completed to collect data to quantify the level of flight activity and its distribution in the vicinity of the Proposed Development. Surveys were predominantly undertaken to characterise flight activity to inform the assessment of impacts for the proposed 400 kV OHL. The data collected also provides an overview of bird usage of the Proposed Development boundary, helping inform assessment of potential disturbance and displacement, as well as identify areas where mitigation measures may be required for the Proposed Development.

VPs were selected to provide coverage of the OHL alignment associated with the Proposed Development, and therefore the coverage of the VP surveys extends beyond the Proposed Development. Data from VPs with viewsheds within 2 km of the Proposed Development were selected for inclusion in this report as they provide the most relevant data.

The VP survey methodology was based on NatureScot's guidelines on the assessment of onshore windfarms<sup>1</sup> and the assessment of impacts of power lines on birds<sup>2</sup>.

VP surveys were undertaken over a 12 month period. Flight activity surveys to the east of the Proposed Development were undertaken between May 2023 and April 2024 (inclusive), and flight activity surveys to the west of the Proposed Development were undertaken between September 2023 and August 2024 (inclusive). Data from flight activity surveys up to May 2024 have been included in this report.

Over the 12 month survey period, a total of 72 hours of VP survey was completed spread across 36 hours in the breeding season and 36 hours in the non-breeding season. Surveys were stratified across diurnal hours with a minimum of two watches at dawn (i.e., starting 0.5 hrs before sunrise - one in autumn and one in spring) and a minimum of two dusk watches (i.e., finishing 0.5 hrs after sunset - one in autumn and one in spring), undertaken across the 12 month period. Vantage point locations are shown in Figure 1.

Viewsheds from VPs covered 180 degrees. During each VP survey the viewshed was scanned using binoculars and a telescope, if required, until a target species was detected in flight. Once detected, the bird was followed until it ceased flying or was lost from view. The time the bird was first detected and duration of the flight, while in sight, was recorded on standardised VP recording forms. The flight line of the bird was then plotted on to a 1:25 000 scaled map in the field.

### 2.1.1.1 TARGET SPECIES

Flight activity target species were informed by a review of qualifying feature species of designated sites within relevant connectivity distances as well as known distributions of other sensitive species and comprised the following groups / species:

- All S1-listed raptors<sup>3</sup>;
- All owls;
- All divers (*Gavia spp.*);
- All geese<sup>4</sup>;
- All terns;
- All skuas;
- All waders;
- All ducks;
- All grebes;

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<sup>1</sup> NatureScot (2017). Recommended bird survey methods to inform impact assessment of onshore wind farms. Version 2.

<sup>2</sup> NatureScot (2016). Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds.

<sup>3</sup> Wildlife & Countryside Act (1981) as amended.

<sup>4</sup> Except for Canada geese (*Branta canadensis*).

- Capercaillie (*Tetrao urogallus*); and
- Black grouse (*Tetrao tetrix*).

### 2.1.1.2 SECONDARY SPECIES

Flight activity secondary species comprised:

- All egrets;
- All gulls;
- Sparrowhawk (*Accipiter nisus*);
- Kestrel (*Falco tinnunculus*);
- Buzzard (*Buteo buteo*);
- Raven (*Corvus corax*);
- Grey heron (*Ardea cinerea*); and
- Cormorant (*Phalacrocorax carbo*).

Target species flight height was estimated at the time of detection and at 15 second intervals thereafter until the bird(s) was lost from view or left the viewshed. Changes between height bands during flights were marked on the map. Flights were categorised into three height bands, based on the potential range of conductor heights for the proposed 400 kV OHL: below potential collision risk height (0-5 m); within potential collision risk height (>5 to 70 m); and above potential collision risk height (>70 m). If multiple flights occurred together, the movement of the target species was prioritised over that of secondary species.

Passerine flights were not mapped, but movements of large groups of notable birds, i.e., Red Listed Birds of Conservation Concern (BoCC5), (Stanbury *et al.*, 2021<sup>5</sup>) were recorded.

### 2.1.2 BREEDING BIRD WALKOVER SURVEYS

Breeding Bird Survey (BBS) visits were undertaken between May and August 2023. The survey approach was based on a modified Brown and Shepherd<sup>6</sup> (1993) walkover method. Three visits were completed covering the Proposed Development and 500 m buffer, as well as a 1 km corridor for the proposed Spittal – Loch Buidhe – Beauly 400 kV OHL. The survey area is shown in Figure 1.

The overall approach to the Breeding Bird Surveys was informed by NS guidance on surveys for power lines and onshore wind farm developments (2017)<sup>7</sup>.

The walkover survey encompassed all habitats, with particular focus on those which may be of potential ornithological importance and of higher bird density.

<sup>5</sup> Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747.

<sup>6</sup> Brown, A. F. and Shepherd, K. B. (1993). *A method for censusing upland breeding waders*. Bird Study, 40, pp. 189-195.

<sup>7</sup> NatureScot (2017). *Recommended Bird Survey Methods to Inform Impact Assessment of Onshore Wind Farms*. Version 2. Guidance.



Surveys avoided adverse weather conditions (i.e., high winds and constant rain). The methodology is based on a constant search effort, allowing 20 to 25 minutes per 500 x 500 m quadrat of open land. A predetermined route through each quadrat was followed so that all areas of each quadrat were approached to within at least 100 m, with the surveys taking place between 08:30 and 18:00, in accordance with guidance.

The behaviour and location of each individual bird was recorded on a 1:25,000 scale map, using standard BTO codes. Records from each survey were combined into a final visit map, so that duplicate records of the same birds could be removed.

The number and indicative location of likely bird territories was estimated by grouping species registrations from the two / three survey visits to produce a breeding bird territory map. Birds flying over the site, species suspected to be on migration, or suspected to be summering non-breeders, were categorised as non-breeding

### 2.1.3 BREEDING RAPTORS

Surveys for raptors were undertaken in 2024 across the Proposed Development and a 2 km buffer in accordance with best practice methods (Hardey *et al.*, 2009)<sup>8</sup>. For golden eagle (*Aquila chrysaetos*) and white-tailed eagle (*Haliaeetus albicilla*), the area of search extended up to 6 km from the Proposed Development to encompass any breeding territories, and up to 2 km for roost sites.

Where eagle nest sites were identified, breeding surveys comprised two survey visits between March and July. Where eagle roost sites were identified, one survey visit took place from a suitable VP overlooking the roost site.

A 2 km radius was applied for all other breeding raptors with two survey visits taking place between March and July at suitable breeding habitats. For owl species (not including short-eared owl (*Asio flammeus*)) and goshawk (*Accipiter gentilis*), the methodology confined the area of search to 1 km out from the Proposed Development.

### 2.1.4 BREEDING DIVERS, DUCKS AND GREBES

Records of breeding divers were acquired from the RSPB identifying Loch Buidhe as a potential location for breeding diver species. In consequence, diver surveys were completed at this location, with the survey methodology following best practice guidance (Gilbert *et al.*, 1998<sup>9</sup>), and two survey visits, separated by at least 14 days, were undertaken between May and July 2023.

Surveys were undertaken in calm dry conditions, with the water and shoreline scanned from a distance to avoid disturbing any potential breeding activity. Any potential breeding signs were recorded, and any diver flight activity was recorded employing the same height bands as used in VP survey recording. As divers are a target species of the VP surveys any flights were expected to identify routes between nesting and feeding sites.

In conjunction with breeding diver surveys, each visit also included surveys for Schedule 1-listed breeding duck and grebe species. Target species comprised garganey (*Anas*

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<sup>8</sup> Hardey, J., Crick, H., Wernham, C., Riley, H. & Thompson, D. (2009). *Raptors: a field guide to survey and monitoring*. 2nd Edition. Edinburgh.

<sup>9</sup> Gilbert, G., Gibbons, D.W. and Evans, J. (1998). *Bird Monitoring Methods*. RSPB, Bedfordshire.

*querquedula*), common scoter (*Melanitta nigra*), black-necked grebe (*Podiceps nigricollis*), and Slavonian grebe (*Podiceps auratus*).

### 2.1.5 BREEDING WOODLAND GROUSE

Records of lekking sites for black grouse (*Lyrurus tetrix*) and capercaillie (*Tetrao urogallus*) were obtained from Forestry and Land Scotland during consultation, and data from RSPB was acquired. Following a desk-based review it was determined the surveys for capercaillie were not required, and effort was confined to searches for breeding black grouse.

Surveys for black grouse lekking sites extended up to 1.5 km from the Proposed Development, comprised two visits between April and May 2024, and followed best practice survey methods (Gilbert *et al.*, 1998). Surveyors scanned pre-identified habitats from strategic locations with a spotting scope, avoiding disturbance. Surveys took place from 1 hour before dawn until 2 hours after sunrise, in calm dry conditions with good visibility.

### 2.1.6 WINTERING RAPTORS

Hen harrier winter roost surveys were triggered following consultation / desk study confirmation that an historical hen harrier (*Circus cyaneus*) roost was situated within 2 km of the Proposed Development. Survey methods followed best practice (Gilbert *et al.*, 1998) with visits commencing 1.5 hours before sunset and finishing 0.5 hours after sunset during winter. Two visits were completed from two locations between December 2023 – February 2024. In addition to hen harrier monitoring, surveys extended to observing for any roosting by short-eared owls.

As target species, observations of hen harriers and short-eared owls were recorded during winter VP surveys to identify any other potential winter roosts.

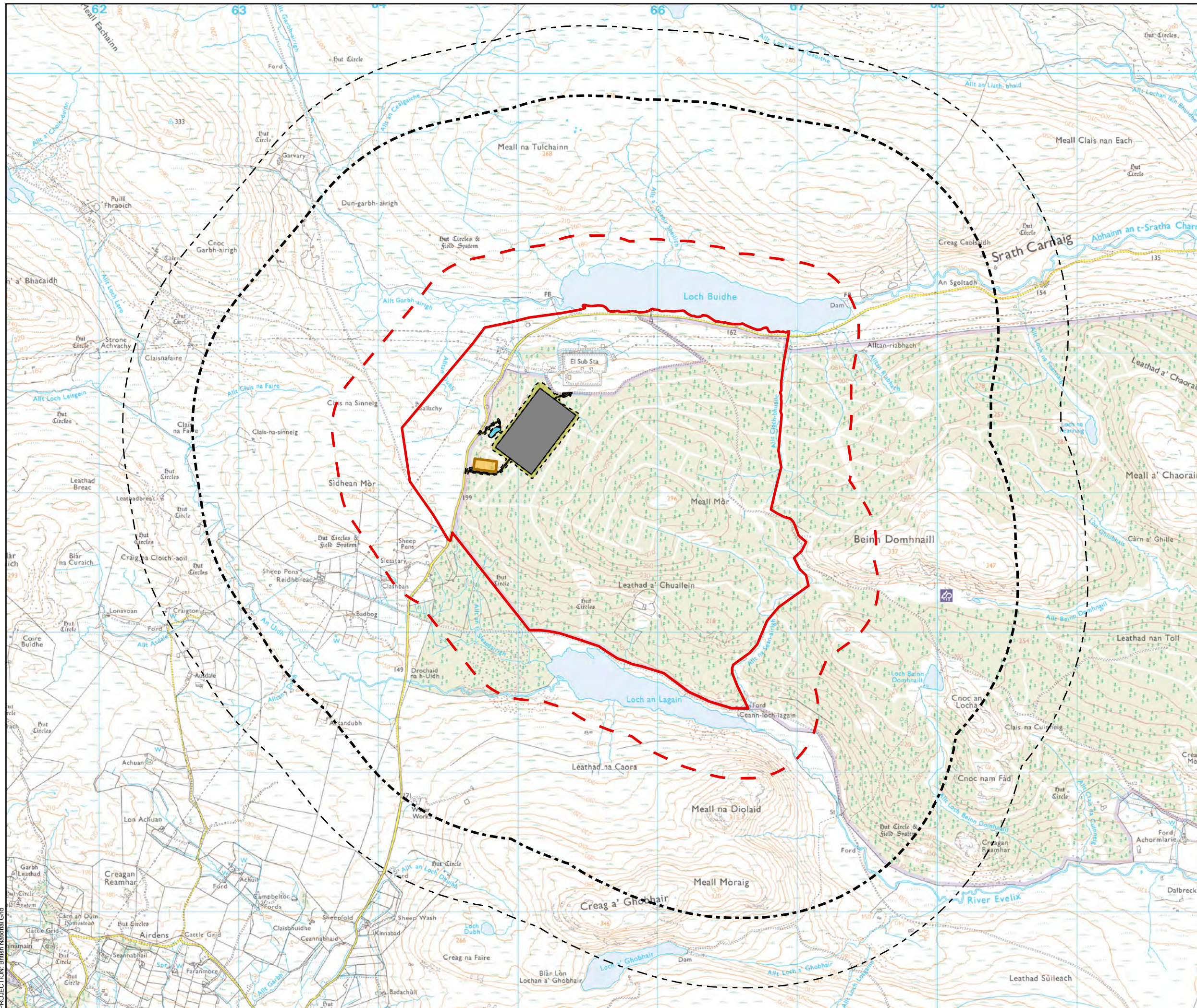
The locations of the winter raptor watch surveys are shown in Figure 1.

### 2.1.7 WINTERING GOOSE SURVEYS

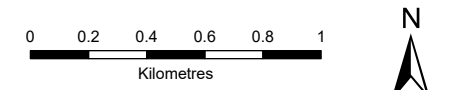
Winter goose surveys were undertaken at Loch Buidhe due to its suitability as an overnight roost for wintering geese and swans. The surveys aimed to identify overnight roosting sites used by geese and swans and commuting flight paths to these sites.

The location was surveyed once per month from November 2023 -February 2024, with surveys following best practice methods (Gilbert *et al.*, 1998) and commenced at either dusk or dawn. Dawn observations at each potential roost site started at least 0.5 hours before sunrise and ended 1 hour after sunrise. Dusk observations at each waterbody started at least 1.5 hours before sunset and ended 0.5 hours after sunset.

The location of the wintering goose survey is shown in Figure 1.



- Proposed Development Boundary
- Proposed Infrastructure**
- Substation Platform
- Access Track
- Temp Access Track
- Earthworks
- Construction Compound
- Drainage Channel
- SUDs Pond
- Breeding Bird Survey Area [500 m]
- Breeding Bird Survey (Black Grouse Area) [1.5 km]
- Breeding Bird Survey Area [2 km]



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**Figure 1**  
**Survey Buffer Areas;**  
**500 m, 1.5 km and 2 km**

**ERM**

Scottish & Southern  
Electricity Networks  
TRANSMISSION

PROJECTION: British National Grid

## 2.2 SURVEY INFORMATION

Breeding bird, breeding raptor, breeding diver, breeding woodland grouse and wintering raptor surveys were all undertaken by Atmos Consulting Ltd. Flight activity surveys to the north and east of the Proposed Development were undertaken by Atmos Consulting Ltd, whilst flight activity surveys to the west of the Proposed Development were undertaken by Direct Ecology Ltd.

## 2.3 SURVEY LIMITATIONS

Due to the project programme and land access limitations, breeding bird surveys in 2023 did not commence until June 2023. The second year of surveys undertaken in the 2024 breeding season is considered to mitigate this limitation.

## 3. RESULTS

### 3.1.1 FLIGHT ACTIVITY SURVEYS

A total of 52 flights by 11 different species were recorded during the period May 2023 – April 2024 (inclusive) from VPs with viewsheds overlapping with the Proposed Development and 500 m buffer. Of the 52 recorded flights, 13 flights occurred either wholly or partially within the area of the Proposed Development. Details of target species flight activity for the period are presented in Table 3.1 and Figure 2.

TABLE 3.1 TARGET SPECIES FLIGHT ACTIVITY

Species	Total number of flights	Flights over the Proposed Development	Flights over wider (2 km) Survey Buffer	Comments
Greylag goose ( <i>Anser anser</i> )	4	2		<ul style="list-style-type: none"> <li>08/04/24, 35 birds flew North above 70 m over the location of the Proposed Development;</li> <li>19/04/24, five birds flew East above 70 m over the location of the Proposed Development.</li> </ul>
			2	<ul style="list-style-type: none"> <li>26/10/23, three birds recorded between 5 - 70 m;</li> <li>10/04/24, one bird above 70 m;</li> </ul>
Pink-footed goose ( <i>Anser brachrhynchos</i> )	4	1		<ul style="list-style-type: none"> <li>20/02/24, a single bird flew in a south easterly direction over the location of the Proposed Development above 70 m.</li> </ul>
			3	<ul style="list-style-type: none"> <li>14/02/24, eight birds above 70 m;</li> <li>19/04/24, 60 birds between 5 - 70 m;</li> <li>19/04/24, 810 birds between 5 - 70 m.</li> </ul>

Species	Total number of flights	Flights over the Proposed Development	Flights over wider (2 km) Survey Buffer	Comments
Whooper swan ( <i>Cygnus cygnus</i> )	1	0		
			1	<ul style="list-style-type: none"> <li>24/10/24, three birds (two adults and one juvenile), between 5-70 m towards South West edge of 2 km buffer.</li> </ul>
Black grouse ( <i>Lyrurus tetrix</i> )	3	0		
			3	<ul style="list-style-type: none"> <li>15/12/23, one bird at OHL CRH;</li> <li>02/02/24, two flights of one and three birds, both below 5 m.</li> </ul>
Dunlin ( <i>Calidris alpina</i> )	1	0		
			1	<ul style="list-style-type: none"> <li>25/07/23, two birds below 5 m.</li> </ul>
Woodcock ( <i>Scolopax rusticola</i> )	1	0		
			1	<ul style="list-style-type: none"> <li>02/02/24, one bird flushed, below 5 m.</li> </ul>
Osprey ( <i>Pandion haliaetus</i> )	8	3		<ul style="list-style-type: none"> <li>19/06/23, one bird entered the Proposed Development from the North at between 5 - 70 m and looped back out to the North East;</li> <li>20/06/23; one bird crossed the Proposed Development at between 5 – 70 m as it left Loch Buidhe to the South East;</li> <li>25/07/23, one bird flew West then South West at between 5-70 m along the northern boundary of the Proposed Development.</li> </ul>
			5	<ul style="list-style-type: none"> <li>19/06/23, one bird 5 - above 70 m;</li> <li>20/06/23, one bird 5 - above 70 m;</li> <li>31/08/23, one bird at 5 - 70 m;</li> <li>08/09/23, one bird 5 – above 70 m</li> <li>19/04/24, one bird at 5 - 70 m.</li> </ul>
Golden eagle ( <i>Aquila chrysaetos</i> )	1	0		
			1	<ul style="list-style-type: none"> <li>28/07/23, one bird at 5 – 70 m at edge of survey buffer.</li> </ul>

Species	Total number of flights	Flights over the Proposed Development	Flights over wider (2 km) Survey Buffer	Comments
Hen harrier ( <i>Circus cyaneus</i> )	6	2		<ul style="list-style-type: none"> <li>02/12/23, one bird flew at 5 – 70 m into the North East edge of the Proposed Development;</li> <li>08/03/24 one adult male briefly crossed the North West corner of the Proposed Development below 5 m, heading South West.</li> </ul>
			4	<ul style="list-style-type: none"> <li>28/09/23, one bird at between 5 - 70 m (mobbed by ravens);</li> <li>28/09/23, one bird below 5 m (likely same bird as above);</li> <li>02/11/23, one female at 5 – 70 m;</li> <li>08/03/24, one bird at 5 – 70 m.</li> </ul>
Red kite ( <i>Milvus milvus</i> )	21	3		<ul style="list-style-type: none"> <li>01/03/24, one bird 5 - above 70 m, circled above forestry immediately North of the Proposed Development then headed West;</li> <li>19/04/24, two flights of one bird each;                             <ul style="list-style-type: none"> <li>First bird at 5 - above 70 m, crossed over the Proposed Development heading West;</li> <li>Second bird flew at 5 - 70 m to plantation situated immediately North of the Proposed Development.</li> </ul> </li> </ul>
			18	<ul style="list-style-type: none"> <li>19/09/23, four birds at 5 – 70 m;</li> <li>26/10/23, three flights of single birds, all at 5 – 70 m;</li> <li>20/11/23, one bird at 5 – 70 m;</li> <li>27/11/23, two birds at 5 – 70 m;</li> <li>20/12/23, one bird at 5 - 70 m;</li> <li>14/02/24, one bird at 5 - 70 m;</li> <li>19/04/24, one bird at 5 - 70 m;</li> <li>20/02/24, four flights of single birds, 0 - above 70 m;</li> <li>26/02/24, one bird at 5 - 70 m;</li> <li>28/02/24, two flights of single birds, both at 5 - 70 m;</li> <li>08/03/24, one bird 0 - above 70 m;</li> <li>11/03/24, one bird above 70 m.</li> </ul>
Merlin ( <i>Falco columbarius</i> )	2	2		<ul style="list-style-type: none"> <li>03/08/23, one bird below 5 m, passed the North West corner of the Proposed Development boundary;</li> <li>11/03/24, one bird at 5 – 70 m, flew West along the northern edge of the Proposed Development boundary.</li> </ul>

### 3.1.2 BREEDING BIRD SURVEYS

A total of 17 species were recorded as confirmed, probable or possible breeding species during surveys. Results are presented in Table 3.2. and the location of the records are presented in Figure 3.

**TABLE 3.2 BREEDING BIRD SPECIES RECORDED AS CONFIRMED / PROBABLE / POSSIBLE BREEDERS WITHIN 2 KM OF THE PROPOSED DEVELOPMENT**

Species	Number of territories 2023			Conservation status
	CO	PR	PO	
Ringed plover ( <i>Charadrius hiaticula</i> )			1	BoCC red list
Mistle thrush ( <i>Turdus viscivourus</i> )			1	BoCC red list
Skylark ( <i>Alauda arvensis</i> )		2	3	BoCC red list
Mallard ( <i>Anas platyrhynchos</i> )	2		2	BoCC amber list
Red-breasted merganser ( <i>Mergus serrator</i> )			1	BoCC amber list
Common sandpiper ( <i>Actitis hypoleucos</i> )		6	1	BoCC amber list
Snipe ( <i>Gallinago gallinago</i> )			1	BoCC amber list
Greenshank ( <i>Tringa nebularia</i> )			1	WCA Schedule 1, BoCC Amber List
Wren ( <i>Troglodytes troglodytes</i> )		2	2	BoCC amber list
Willow warbler ( <i>Phylloscopus trochilus</i> )			7	BoCC amber list
Meadow pipit ( <i>Anthus pratensis</i> )	3	2	15	BoCC amber list
Carrion crow ( <i>Corvus corone</i> )			2	BoCC green list
Goldcrest ( <i>Regulus regulus</i> )			13	BoCC green list
Coal tit ( <i>Periparus ater</i> )			1	BoCC green list
Stonechat ( <i>Saxicola torquata</i> )	1	1		BoCC green list
Chaffinch ( <i>Fringilla coelebs</i> )		1	13	BoCC green list
Siskin ( <i>Spinus spinus</i> )			3	SBL, BOCC green list

Key: CO – Confirmed. PR – Probable. PO – Possible. BoCC – Birds of Conservation Concern. SBL – Scottish Biodiversity List.

Within the Proposed Development and 2 km buffer area breeding was determined for the following protected / notable species:

- Greenshank (*Tringa nebularia*) WCA Schedule 1) – one possible territory was recorded with one bird recorded loafing on 19/06/23 at edge of Loch Buidhe, outside the Proposed Development boundary but within the 2 km buffer area, the location is shown on **Confidential Figure 1**; and,
- Siskin (*Carduelis spinus*) (SBL) - three possible territories were recorded. Two of the territories were located in the conifer stand immediately adjacent to the footprint of the proposed substation, with the third territory located near the eastern edge of the 2 km buffer area.

An additional 15 non-breeding species were recorded during the BBS visits. Of these, one species, common crossbill (*Loxia curvirostra*) is listed on Schedule 1 of the WCA. Eight and ten species are red and amber BoCC listed, respectively, and nine are on the SBL.

### 3.1.3 BREEDING RAPTORS

There was no recorded breeding activity by Schedule 1 / Annex I species during surveys completed in 2024.

### 3.1.4 BREEDING DIVER, DUCKS AND GREBES

No species were recorded breeding on Loch Buidhe during surveys in 2023.

### 3.1.5 BREEDING WOODLAND GROUSE

Two black grouse leks were recorded within the 1.5 km survey buffer for the species. The first lek is situated approximately 700 m South West of the Proposed Development boundary where, on 19/04/24 a single male was recorded. The second lek was located 1.4 km to the North West of the Proposed Development boundary, where on 19/04/24 seven males were recorded.

### 3.1.6 WINTERING RAPTORS

No hen harrier or short-eared owl roosts were recorded during baseline surveys conducted for the Proposed Development.

### 3.1.7 WINTER GOOSE ROOST

Eight flights of one species, greylag goose, were recorded during winter goose roost surveys. One flight was recorded on 23/11/23, with all seven remaining flights recorded on the same dawn watch on 17/04/24. Flight movements were predominantly in an East to West direction, with three of the flights partially flying over the Proposed Development boundary.

No roosting or loafing geese were recorded on Loch Buidhe during any surveys.

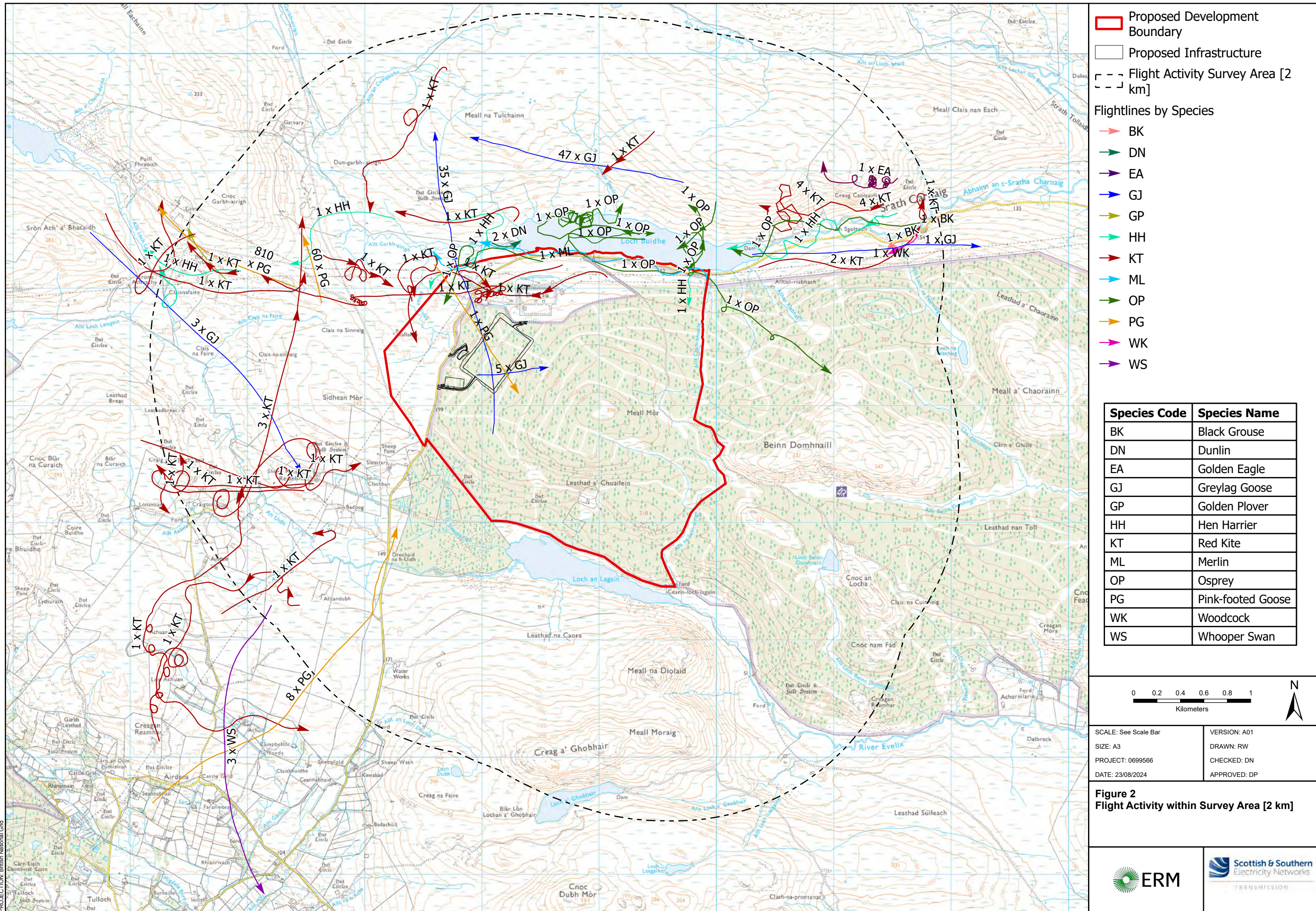
Details of flights are presented in Table 3.1.4 and are shown in Figure 4.

**TABLE 3.3 WINTER GOOSE ROOST FLIGHT INFORMATION**

Species	Date	Number of flights	Time	Number of birds	Comments
Greylag goose ( <i>Anser anser</i> )	21/11/23	1	16:34	47	1. Above 70 m, flew over North side of Loch Buidhe, direction East to West.
	17/04/24	7	05:28	47	1. Above 70 m, flew over Proposed Development, East – South West;
			05:33	84	2. Above 70 m, flew over northern edge of Proposed Development East – West;
			05:40	10	3. Above 70 m, flew over northern edge of Proposed Development East – West;

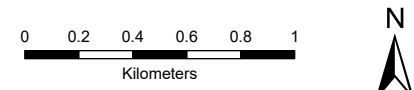


Species	Date	Number of flights	Time	Number of birds	Comments
			05:41	12	4. Above 70 m, flew over slopes North of Loch Buidhe, East – North West;
			05:49	10	5. Above 70 m, flew over slopes north of Loch Buidhe, East - West;
			06:01	65	6. Above 70 m, flew over Loch Buidhe, East - West; and
			06:27	1	7. Above 70 m, flew over Loch Buidhe, East – West.



- Proposed Development Boundary
- Proposed Infrastructure
- Flight Activity Survey Area [2 km]
- Flightlines by Species**
- BK
- DN
- EA
- GJ
- GP
- HH
- KT
- ML
- OP
- PG
- WK
- WS

Species Code	Species Name
BK	Black Grouse
DN	Dunlin
EA	Golden Eagle
GJ	Greylag Goose
GP	Golden Plover
HH	Hen Harrier
KT	Red Kite
ML	Merlin
OP	Osprey
PG	Pink-footed Goose
WK	Woodcock
WS	Whooper Swan

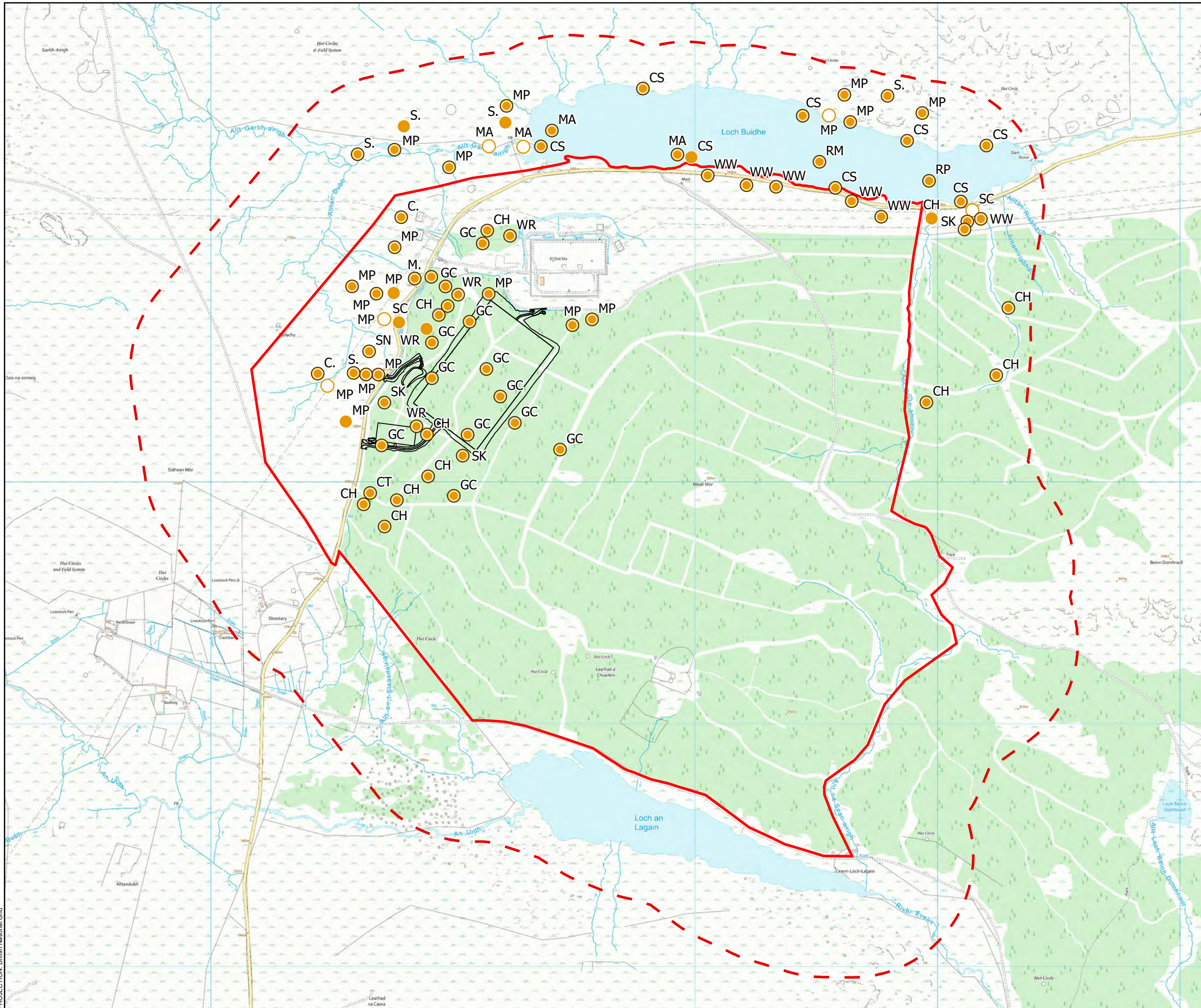


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SIZE: A3	DRAWN: RW
PROJECT: 0699566	CHECKED: DN
DATE: 23/08/2024	APPROVED: DP

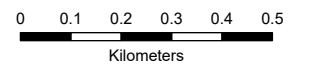
**Figure 2**  
Flight Activity within Survey Area [2 km]



PROJECTION: British National Grid



▭ Proposed Development Boundary  
▭ Proposed Infrastructure  
- - - Breeding Bird Survey Area [500 m]  
**Bird Breeding Survey (BBS): Territory Analysis**  
**BBS Status**  
● Confirmed  
● Possible  
● Probable  
 Image

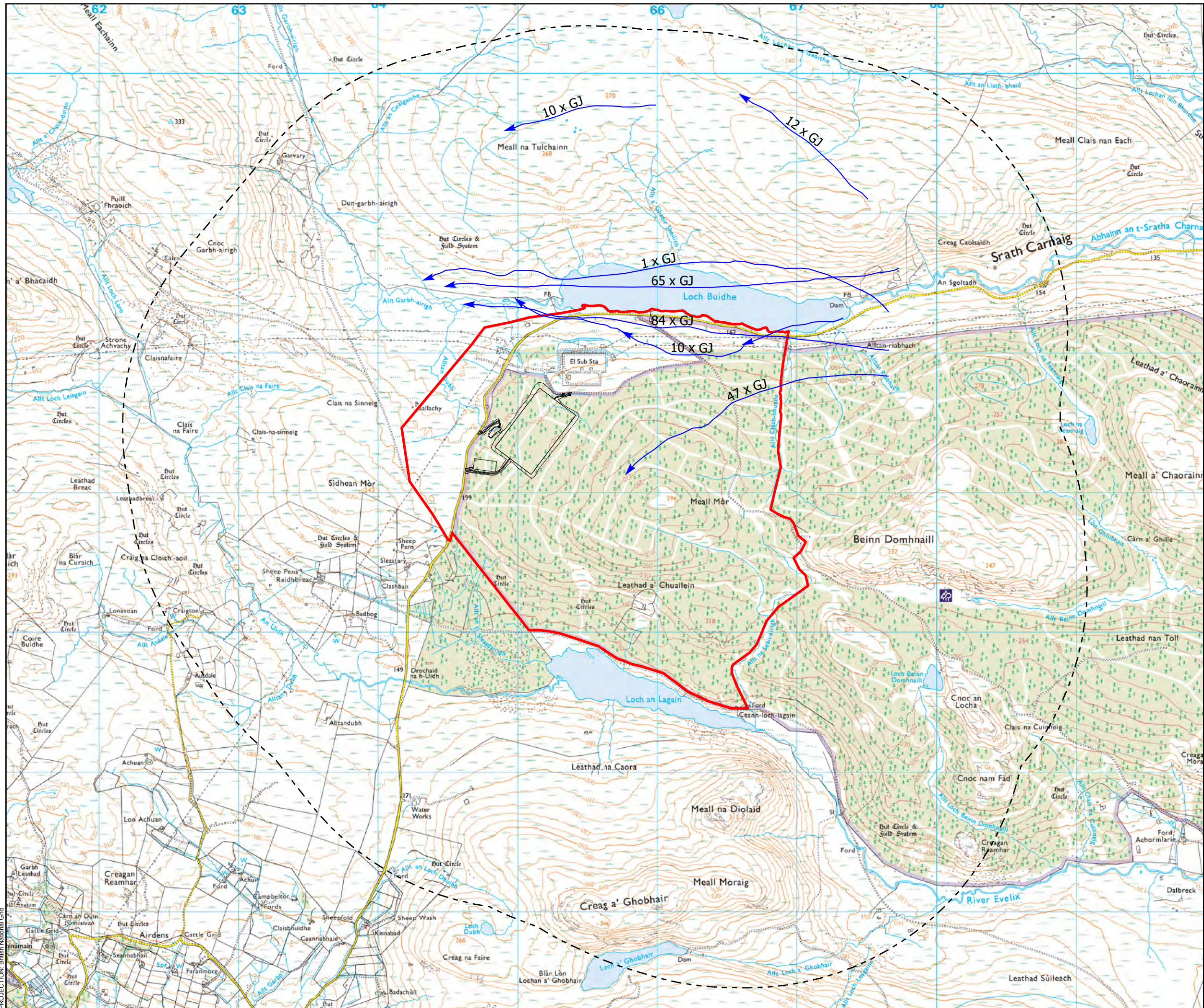


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 PROJECT: 0699566  
 DATE: 23/08/2024

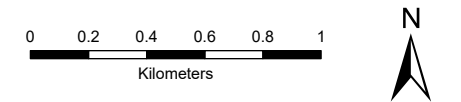
VERSION: A01  
 DRAWN: RW  
 CHECKED: DN  
 APPROVED: DP

**Figure 3**  
**Breeding Birth Activity within Survey Area [500 m]**





- Proposed Development Boundary
- Proposed Infrastructure
- Flight Activity Survey Area [2 km]
- Flightlines by Species
- ➔ GJ - Greylag Goose



SCALE: See Scale Bar	VERSION: A01
SIZE: A3	DRAWN: CR
PROJECT: 0699566	CHECKED: DN
DATE: 23/08/2024	APPROVED: DP

**Figure 4**  
**Winter Goose Roost and Flight Activity**  
**within Survey Area [2 km]**



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