# Tangy IV Wind Farm Section 36C Variation

# Technical Appendix 6.1: Ornithology Technical Report

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# 1 Introduction

## 1.1 Background and Scope of the Report

1.1.1 SSE Generation Limited (“the Applicant”) is applying to vary the Tangy IV Wind Farm proposal (“the Consented Development”) by increasing the tip height of the turbines and other associated changes to infrastructure (“the Proposed Varied Development”). The Red Line Boundary of the Site is the same for both the Consented Development and the Proposed Varied Development. The layouts of the Consented Development and the Proposed Varied Development are shown respectively in **Figures 1.1** and **1.3** within **Volume 3a** of the Tangy IV Wind Farm Section 36C (S36C) Environmental Impact Assessment (EIA) Report. The full description of the Proposed Development and an overview of the Site is presented in **Volume 2**, **Chapter 2**: **Description of Development and Design Iteration** within **Volume 2** of the Tangy IV Wind Farm EIA Report.

1.2 Updated ornithological field surveys, comprising Vantage Point (VP) surveys and targeted roosting goose surveys, were undertaken between April 2025 and May 2026. The results of these surveys, together with an updated desk study, informed the Ornithological Impact Assessment (OIA) for the Proposed Varied Development, which is presented in **Chapter 6: Ornithology** within **Volume 2** of the Tangy IV Wind Farm S36C EIA Report. This Technical Appendix (TA) has been produced as a supporting document to **Chapter 6: Ornithology** within **Volume 2** of the Tangy IV Wind Farm S36C EIA Report. It includes details of the methods and results of the updated ornithology desk study and field surveys completed for the Proposed Varied Development. It also includes the methods and results used for the Collision Risk Modelling (CRM) to predict the annual number of collisions to target bird species resulting from operation of the Proposed Varied Development.

## 1.2 Bird Species Names and Conservation Status

1.2.1 All bird species names used in this TA follow the British List, which is maintained by the British Ornithologists’ Union (BOU, 2022), with all species referred to by their British (English) vernacular name. A list of scientific names, as well as details of relevant legislation and conservation status, of all bird species referred to in this TA is provided in **Appendix A** of this report.

# 2 Methods

## 2.1 Desk Study

2.1.1 A desk study was completed for the Consented Development, the details of which are included in Technical Appendix 9.1 of the 2018 EIA Report for the Consented Development.

2.1.2 To update the desk study for the Proposed Varied Development, a check was completed to ensure that there were no changes to the list of statutory sites identified in Chapter 9 of the 2018 EIA Report for the Consented Development, using Geographic Information System (GIS) data available via the NatureScot Spatial Data Hub[11], with details of these sites obtained via the NatureScot SiteLink website[22]. Distances between these sites and the Proposed Varied Development (at the closest point) were checked using Geographic Information System (GIS).

2.1.3 Records of breeding or roosting eagle species within 6km of the Proposed Varied Development, and other raptor species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and / or Annex I of the Birds Directive within 2km of the Proposed Varied Development, held by the Argyll Raptor Study Group (ARSG).

2.1.4 Additionally, the ornithology chapter of the EIA Report for the proposed Cnoc Buidhe Wind Farm (Belltown Power, 2025a), which borders the Site to the north, and subsequent Additional Environmental Reports (Belltown Power, 2025b; 2026), were reviewed for relevant information, particularly in relation to Greenland white-fronted goose and golden eagle.

## 2.2 Field Surveys

2.2.1 The following ornithology field surveys were completed between April 2025 and May 2026 to inform the OIA for the Proposed Varied Development:

- vantage point (VP) surveys (April 2025 – May 2026); and
- targeted roosting goose surveys (October 2025 – May 2026).

2.2.2 Further details of the survey methods are presented in the following sections.

### Vantage Point Surveys

#### Aims

2.2.3 Monthly VP surveys based on standard methods detailed in current NatureScot (2025a) guidance were completed, with timed watches from three VP locations overlooking the Site to record flight activity by target species.

2.2.4 The aim of the surveys was to obtain the data required for CRM, to estimate annual collision risk of relevant target species. However, the VP data were also used to provide an overview of how birds use the Site, to help to inform the OIA (presented in **Volume 2, Chapter 6: Ornithology** of the Tangy IV Wind Farm S36C EIA Report). The

2.2.5 The target species for the Proposed Varied Development were as follows:

- qualifying species of the Kintyre Goose Roosts Special Protection Area (SPA), namely Greenland white-fronted goose;
- other wildfowl species, excluding Canada goose;
- wader species
- diver species;
- raptor species listed on Annex I of the Birds Directive and/or Schedule 1 of the Wildlife and Countryside Act 1981 (as amended),
- black grouse; and
- gull species.

2.2.6 Secondary species included Canada goose, cormorant, grey heron and all other raptor species.

### VP Locations

2.2.7 The VP locations used during previous VP surveys for the Consented Development can be seen in Table 2.1 and location for the Proposed Varied Development can be seen in Table 2-2. Locations for the 2025-2026 surveys were based on the original VP locations for the Consented Development. While these new locations differ, they are located in close proximity to (within 10m) the original locations.

2.2.8 Details of VP locations are provided in Table 2.1 and locations and viewsheds are shown in **Volume 3a: Figure 6.1** of the Tangy IV Wind Farm S36C EIA Report.

**Table 2-1: VP Locations and View Bearings Consented Development**

| VP | Grid Reference Location | View Bearing |
|---|---|---|
| 1 | NR 67151 30399 | 180 |
| 2 | NR 68312 28378 | 270 |
| 3 | NR 69835 28378 | 300 |

**Table 2-2: VP locations and View Bearings 2025 – 2026 Proposed Varied Development**

| VP | Grid Reference Location | View Bearing |
|---|---|---|
| 1 | NR 67159 30394 | 180 |
| 2 | NR 68305 28459 | 270 |
| 3 | NR 69813 28385 | 300 |

### Timing

2.2.9 Data were collected during timed watches from the VPs between April 2025 and May 2026. The individual VP watches were spread over the full available daylight hours and including watches focussed on dawn and dusk hours.

2.2.10 Each VP watch lasted a maximum of three hours. Breaks of at least 30 minutes were taken between VP watches to minimise observer fatigue.

### Recording Methods

2.2.11 During each VP survey, two recording methods were used to record flight activity: focal bird sampling for target species and activity summaries for secondary species.

2.2.12 **Focal bird sampling for target species:** the area in view was scanned until a target species flight was detected, at which point it was followed until it ceased flying or was lost from view. Recording of target species took priority over completion of secondary species activity summaries. In addition to species and number of birds, the time the target species flight was detected, and the flight duration were both recorded. The flight path of the bird was plotted in the field onto OS 1:15,000 and 1:16,000 scale maps by the surveyor at the time of observation. The flight height was estimated at the time of detection and then at 15-second intervals thereafter. Flight heights were classified into the following height bands:

- height band 1: <20m;
- height band 2: 20-40m;
- height band 3: 40-100m;
- height band 4: 100-150m;
- height band 5: 150-250m; and
- height band 6: >250m.

2.2.13 Note that height bands 5 and 6 differed from those used during the 2016-17 VP surveys for the Consented Development, when height band 5 was defined as >150m and there was no height band 6. This was accounted for in the revised CRM (detailed in section 2.3).

2.2.14 Where possible sex and age was also recorded, especially for raptor species. Any relevant behaviours were also recorded.

2.2.15 **Activity summaries for secondary species:** each watch was sub-divided into 5-minute periods, at the end of which the number and activity of all secondary species observed was recorded. If a target species was being tracked at the end of a 5-minute period, then the activity summary for that period was abandoned and a new one started once observations of the target species had ended.

2.2.16 As well as birds in flight, static target and secondary species, and those recorded through sound (but not by sight), or those outside the viewshed were recorded. Static birds, e.g., perched birds and birds on waterbodies were recorded once only on arrival at the VP. Thereafter, only flying birds and newly noticed perched birds were recorded. This allowed greater time for recording flight activity than repeated observations of the same static birds.

2.2.17 Each survey was undertaken by a single observer, and the majority were completed in good visibility (defined as >3km). Weather and visibility conditions varied and were recorded on an hourly basis including information on wind strength and direction, precipitation and cloud cover.

### Survey Effort

2.2.18 VP surveys were conducted monthly from April 2025 to May 2026, thus covering a full breeding season, a full non-breeding season and a full spring and autumn migratory period.

2.2.19 A summary of the monthly survey effort completed from each VP is presented in Table 2.2, with the full survey details, including hourly weather data provided in **Appendix B** of this report.

**Table 2-3: Summary of VP Survey Effort (2025-26)**

| Month and Year | Flight Activity Survey Effort (hrs) | | |
|---|---|---|---|
| | **VP1** | **VP2** | **VP3** |

| Month and Year | Flight Activity Survey Effort (hrs) | | |
|---|---|---|---|
| April 2025 | 6 | 6 | -* |
| May 2025 | 6 | 6 | 12 |
| June 2025 | 6 | 6 | 6 |
| July 2025 | 6 | 6 | 6 |
| August 2025 | 6 | 6 | 6 |
| **Breeding Season Total** | **30** | **30** | **30** |
| | | | |
| September 2025 | 6 | 3 | 3 |
| October 2025 | 6 | 9 | 9 |
| November 2025 | 6 | 6 | 6 |
| December 2025 | 6 | 6 | 6 |
| January 2026 | 6 | 6 | 6 |
| February 2026 | 6 | 6 | 6 |
| **Non-Breeding Season Total** | **36** | **36** | **36** |
| | | | |
| March 2026 | 6 | 6 | 6 |
| April 2026 | 6 | 6 | 6 |
| May 2026 | 6 | 6 | 6 |
| **Spring Total** | **18** | **18** | **18** |
| | | | |
| **Total Hours** | **84** | **84** | **84** |

*Due to late commissioning, the first surveys from VP 3 took place on 01/06/2025; further details are provided under Limitations

## Roosting Goose Surveys

2.2.20 The Proposed Varied Development is within 20km of the Kintyre Goose Roosts SPA, which is also a Ramsar site and includes three Sites of Special Scientific Interest (SSSIs): Tangy Loch SSSI, Kintyre Goose Lochs SSSI and Rhunahaorine Point SSSI. The SPA and Ramsar site are designated for Greenland white-fronted goose and comprises a series of hill lochs (Loch Garasdale, Loch an Fhraoich, Lussa Loch, Tangy Loch and Black Loch) and an area of grassland and heath at Rhunahaorine Point on the Kintyre peninsula

2.2.21 Roosting goose surveys were completed from a VP location overlooking Tangy Loch, which is the only SPA component loch within 1km of the Proposed Varied Development. Surveys aimed to record use of this loch by Greenland white-fronted geese.

2.2.22 Watches of Tangy Loch were completed from a VP location overlooking the loch. This is shown in **Volume 3a: Figure 6.2** of the Tangy IV Wind Farm S36C EIA Report Surveys were completed twice per month between October and April, with a single visit in early May (15 survey visits in total), alternating between dawn and dusk. The aim of the surveys was to count flocks of Greenland white-fronted geese departing from/arriving at the lochs to roost.

2.2.23 In line with NatureScot (2025a) guidance, methods were based on national censuses of geese detailed in Gilbert *et al.* (1998).

2.2.24 In addition to SPA species any notable species (such as large aggregations of other wildfowl species) were also recorded during the surveys.

2.2.25 Survey effort is summarised in Table 2-4, with full details provided in **Appendix C** of this report.

**Table 2-4: Summary of Roosting Goose Survey Effort (2025-26)**

| Visit No. | Dawn/Dusk Survey | Date | Start Time | End Time |
|---|---|---|---|---|
| 1 | Dawn | 17/10/2025 | 06:28 | 07:28 |
| 2 | Dusk | 27/10/2025 | 15:55 | 17:33 |
| 3 | Dawn | 12/11/2025 | 06:20 | 08:40 |
| 4 | Dusk | 25/11/2025 | 15:00 | 17:45 |
| 5 | Dawn | 11/12/2025 | 07:15 | 09:45 |
| 6 | Dusk | 21/12/2025 | 14:45 | 17:30 |
| 7 | Dawn | 09/01/2026 | 07:10 | 09:20 |
| 8 | Dusk | 20/01/2026 | 15:30 | 17:45 |
| 9 | Dawn | 11/02/2026 | 06:30 | 08:45 |
| 10 | Dusk | 24/02/2026 | 16:40 | 19:15 |
| 11 | Dawn | 11/03/2026 | 05:15 | 08:20 |
| 12 | Dusk | 23/03/2026 | 17:10 | 19:45 |
| 13 | Dawn | 09/04/2026 | 05:00 | 08:30 |
| 14 | Dusk | 21/04/2026 | 19:20 | 22:20 |
| 15 | Dawn | 08/05/2026 | 05:00 | 07:00 |

### Limitations

2.2.26 Due to late commissioning, surveys from VPs 1 and 2 commenced in late April, while those from VP 3 commenced at the start of May, potentially missing the very start of the 2025 breeding season for some species. However, as surveys continued over a continuous period until early May 2026, thus capturing monthly data across more than 12 months, the slightly late start is not considered to represent a constraint to the robustness of the dataset.

2.2.27 A total of 30 hours of watches per VP were carried out during the 2025 breeding season (April to August) VP surveys, which is less than the recommended minimum of 36 hours per VP per season in NatureScot (2025a) guidance. However, as surveys were completed over a 13-month to 14-month period (to cover spring 2026), additional breeding season survey hours were completed between March and early May 2026 (18 hours per VP). As such, there is considered to be sufficient data to inform robust CRM.

2.2.28 Although every effort was made to schedule surveys during periods of dry weather with good visibility, due to the need to schedule surveys in advance, this was not always possible, especially where conditions differed from those forecast. The majority (85%) of VP surveys were completed during conditions of good visibility (>3km), but visibility was sometimes categorised as moderate (1-3km) and during two surveys in May 2025 (representing 2% of surveys) it was poor (<1km). As most surveys were completed in good visibility, the overall dataset is considered to be sufficiently robust to inform the CRM.

## 2.3 Collision Risk Modelling

2.3.1 CRM was carried out for the Proposed Varied Development based on current guidance (NatureScot, 2024). The data used in the CRM were collected during VP surveys conducted for the Consented Development between September 2016 and November 2017 (detailed in Appendix 9.1 of the 2018 EIA Report for the Consented Development) and for the Proposed Varied between April 2025 and May 2026 (detailed in section 2.3).

## Parameters and Modelling Inputs

### Collision Risk Analysis Area

2.3.2 The Collision Risk Analysis Area (CRAA) (6,516,144m$^2$ for 2016-17 surveys and 6,508,190m$^2$ for 2025-26 surveys) by adding a buffer, equal to the rotor radius plus 500m, around the 16-turbine layout for the Proposed Varied Development.

### Potential Collision Height

2.3.3 PCH is the height between the minimum air gap (the distance from the ground to the lowest turbine blade sweep) and maximum tip height of the turbines, which for the Proposed Varied Development is 50-200m. Therefore, flights recorded at height bands 3-5 (during 2016-17 VP surveys for the Consented Development and 2025-26 surveys for the Proposed Varied Development) were considered to be at PCH. Note that, because flights may not be evenly distributed within each height band, no adjustment was made in the CRM to account for the fact that some flights within height bands 3-5 may have been below or above PCH because these height bands span a greater height (41-250m) than the turbine blades). This is considered to be a precautionary approach.

### Flight Data

2.3.4 Only bird flights recorded during the 2016-17 VP surveys for the Consented Development and the 2025-26 surveys for the Proposed Varied Development were included in the CRM. Data was loaded into the R coding environment (v. 4.4.2; R Core Team, 2020) using the "sf" package (Pebesma, 2018; Pebesma & Bivand, 2023).

2.3.5 The aggregated flight seconds in each height band of each target species observed during the VP surveys, both inside and outside the CRAA, are presented in Table 2-5 for the 2016-17 surveys and Table 2-6 for the 2025-26 surveys. Note that the number of birds is not necessarily the number of different individuals, but may be, for instance the same bird flying through the area several times.

**Table 2-5: Aggregated Flight Seconds in each Height Band of all Target Species Recorded during the 2016-17 VP Surveys**

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | |
|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: >150m |
| Barnacle goose | 1 | 6 | 0 | 150 | 0 | 0 | 0 |
| Greylag goose | 37 | 1644 | 625 | 645 | 1290 | 1290 | 0 |
| Greenland white-fronted goose | 70 | 8570 | 2226 | 1495 | 890 | 890 | 380 |
| Curlew | 20 | 23 | 110 | 200 | 0 | 0 | 0 |
| Woodcock | 1 | 1 | 5 | 0 | 0 | 0 | 0 |
| Snipe | 3 | 4 | 90 | 165 | 0 | 0 | 0 |
| Common sandpiper | 9 | 10 | 55 | 0 | 0 | 0 | 0 |
| Common gull* | 11 | 20 | 0 | 0 | 0 | 0 | 0 |
| Great black-backed gull* | 12 | 22 | 0 | 0 | 0 | 0 | 0 |
| Herring gull | 16 | 174 | 263 | 220 | 0 | 0 | 0 |
| Lesser black-backed gull* | 6 | 22 | 0 | 0 | 0 | 0 | 0 |

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | |
|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: >150m |
| Red-throated diver* | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Golden eagle | 1 | 1 | 0 | 0 | 0 | 0 | 420 |
| Hen harrier | 6 | 6 | 585 | 210 | 0 | 0 | 0 |
| Kestrel* | 56 | 57 | 0 | 0 | 0 | 0 | 0 |
| Peregrine | 3 | 3 | 5 | 0 | 90 | 90 | 345 |

* Flight heights not recorded as VPs were undertaken before guidance was updated by NatureScot

**Table 2-6: Aggregated Flight Seconds in each Height Band of all Target Species Recorded during the 2025-26 VP Surveys**

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | |
|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: 150-250m |
| Canada goose | 24 | 144 | 1215 | 1335 | 660 | 660 | 45 |
| Greylag goose | 32 | 361 | 480 | 840 | 1065 | 1065 | 285 |
| Greenland white-fronted goose | 12 | 611 | 570 | 900 | 540 | 540 | 225 |
| Shelduck | 2 | 6 | 0 | 30 | 0 | 0 | 0 |
| Wigeon | 1 | 3 | 15 | 0 | 0 | 0 | 0 |
| Mallard | 5 | 21 | 45 | 0 | 255 | 255 | 0 |
| Teal | 1 | 4 | 120 | 0 | 0 | 0 | 0 |
| Ring-necked duck | 2 | 9 | 45 | 15 | 0 | 0 | 0 |
| Tufted duck | 3 | 4 | 60 | 0 | 0 | 0 | 0 |
| Goldeneye | 3 | 8 | 60 | 15 | 0 | 0 | 0 |
| Oystercatcher | 1 | 2 | 60 | 0 | 0 | 0 | 0 |
| Curlew | 1 | 8 | 0 | 0 | 15 | 15 | 0 |
| Snipe | 5 | 16 | 270 | 330 | 120 | 120 | 0 |
| Common sandpiper | 3 | 3 | 300 | 0 | 0 | 0 | 0 |
| Common gull | 119 | 620 | 7785 | 6225 | 570 | 570 | 210 |
| Great Black-backed gull | 16 | 20 | 30 | 240 | 435 | 435 | 30 |
| Herring gull | 50 | 299 | 45 | 495 | 1185 | 1185 | 405 |
| Lesser black-backed gull | 11 | 15 | 135 | 645 | 90 | 90 | 45 |
| Golden eagle | 6 | 8 | 120 | 270 | 600 | 600 | 105 |
| Hen harrier | 29 | 37 | 4800 | 1365 | 270 | 270 | 150 |
| White-tailed eagle | 3 | 3 | 0 | 120 | 150 | 150 | 0 |
| Merlin | 1 | 1 | 180 | 0 | 0 | 0 | 0 |

2.3.6 Only flights or parts of flights that were inside both the CRAA and the relevant VP viewshed (i.e., the part the relevant VP viewshed that overlapped with the CRAA) were included in the CRM. If a flight was only partially within this area, it was clipped, i.e., the proportion that was within the area of overlap between the CRAA and relevant VP viewshed was calculated and the number of seconds was adjusted assuming the bird was

flying at a constant speed. Aggregated flight seconds of each target species, clipped to flights within the area of the area of overlap between the CRAA and relevant VP viewshed, are presented in Table 2-7 for the 2016-17 surveys and Table 2-8 for the 2025-26 surveys.

**Table 2-7: Aggregated Flight Seconds in Each Height Band of all Target Species Recorded during the 2016-17 VP Surveys Clipped to the Area of Overlap between the CRAA and Relevant VP Viewshed**

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | | Screened in |
|---|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: >150m | |
| Barnacle goose | 1 | 6 | 0 | 57 | 0 | 0 | 0 | No |
| Greylag goose | 21 | 973 | 193 | 239 | 186 | 186 | 0 | No |
| Greenland white-fronted goose | 10 | 199 | 84 | 66 | 6 | 6 | 94 | Yes |
| Curlew | 17 | 20 | 56 | 190 | 0 | 0 | 0 | No |
| Woodcock* | - | - | - | - | - | - | - | No |
| Snipe | 1 | 2 | 67 | 147 | 0 | 0 | 0 | No |
| Common sandpiper | 1 | 1 | 1 | 0 | 0 | 0 | 0 | No |
| Common gull** | 9 | 16 | 0 | 0 | 0 | 0 | 0 | No |
| Great black-backed gull** | 5 | 7 | 0 | 0 | 0 | 0 | 0 | No |
| Herring gull | 5 | 11 | 7 | 58 | 0 | 0 | 0 | Yes |
| Lesser black-backed gull** | 2 | 3 | 0 | 0 | 0 | 0 | 0 | No |
| Red-throated diver* | - | - | - | - | - | - | - | No |
| Golden eagle | 1 | 1 | 0 | 0 | 0 | 0 | 252 | Yes |
| Hen harrier | 4 | 4 | 288 | 63 | 0 | 0 | 0 | Yes |
| Kestrel** | 49 | 50 | 0 | 0 | 0 | 0 | 0 | No |
| Peregrine | 2 | 2 | 0 | 0 | 82 | 82 | 313 | Yes |

*species were not recorded within the turbine envelope; ** Flight heights not recorded as VPs were undertaken before guidance was updated by NatureScot

**Table 2-8: Aggregated Flight Seconds in Each Height Band of all Target Species Recorded during the 2025-26 VP Surveys Clipped to the Area of Overlap between the CRAA and Relevant VP Viewshed**

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | | Screened in |
|---|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: 150-250m | |
| Canada goose | 18 | 127 | 414 | 428 | 340 | 340 | 0 | No |
| Greylag goose | 19 | 160 | 149 | 218 | 567 | 567 | 116 | Yes |
| Greenland white-fronted goose | 7 | 429 | 51 | 72 | 49 | 49 | 112 | Yes |
| Wigeon* | - | - | - | - | - | - | - | No |
| Mallard | 3 | 16 | 8 | 0 | 76 | 76 | 0 | No |
| Teal* | - | - | - | - | - | - | - | No |

| Species | No. of Flights | No. of Birds | Flight Seconds | | | | | Screened in |
|---|---|---|---|---|---|---|---|---|
| | | | Height Band 1: <20m | Height Band 2: 20-40m | Height Band 3: 40-100m | Height Band 4: 100-150m | Height Band 5: 150-250m | |
| Ring-necked duck* | - | - | - | - | - | - | - | No |
| Goldeneye* | - | - | - | - | - | - | - | No |
| Oystercatcher | 1 | 2 | 19 | 0 | 0 | 0 | 0 | No |
| Snipe | 2 | 2 | 69 | 97 | 39 | 39 | 0 | No |
| Common sandpiper | 2 | 2 | 63 | 0 | 0 | 0 | 0 | No |
| Common gull | 54 | 161 | 1,558 | 1,633 | 204 | 204 | 62 | Yes |
| Great black-backed gull | 9 | 10 | 26 | 89 | 220 | 220 | 0 | Yes |
| Herring gull | 10 | 60 | 12 | 130 | 652 | 652 | 58 | Yes |
| Lesser black-backed gull | 9 | 13 | 90 | 334 | 33 | 33 | 16 | No |
| Golden eagle | 4 | 5 | 33 | 130 | 188 | 188 | 42 | Yes |
| Hen harrier | 17 | 17 | 1,928 | 805 | 218 | 218 | 117 | Yes |
| White-tailed eagle | 1 | 1 | 0 | 45 | 78 | 78 | 0 | Yes |
| Merlin | - | - | - | - | - | - | - | No |

*blank – species were not recorded within the turbine envelope

2.3.7 Some target species were scoped out of the CRM analysis, because:

- they are common and widespread species that are not identified in NatureScot (2025b) guidance as potentially at risk of onshore wind farms (this applied to wigeon, mallard, teal, ring-necked duck, goldeneye, oystercatcher, snipe and common sandpiper); and/or
- flight activity was so low that the species was considered to be at negligible risk of collision; this was defined as species with less than three individuals in flight at potential collision height (PCH) within the area of overlap between the CRAA and relevant VP viewshed (this applied to shelduck, wigeon, teal, ring-necked duck, oystercatcher, curlew and merlin).

2.3.8 The remaining 14 species were scoped into the revised CRM for the Proposed Varied Development: Canada goose, greylag goose, Greenland white-fronted goose, mallard, oystercatcher, snipe, common sandpiper, common gull, great black-backed gull, herring gull, lesser black-backed gull, golden eagle, hen harrier and white-tailed eagle.

### Viewshed Areas

2.3.9 As only target species flights, or parts of flights, that were within the CRAA were included in the CRM, the same treatment was applied to VP viewsheds. The area of each VP viewshed that was within the CRAA varied from 50.69% to 61.15% during 2016 – 17 surveys and 52.45% to 61.15% during 2025 – 26 surveys. As a precautionary approach, only areas of viewsheds that were within the CRAA were included in the CRM to prevent collision risk from being underestimated. The area of overlap between each VP viewshed and the CRAA was calculated in GIS and is presented in Table 2.8.

**Table 2-9: VP Viewshed Areas and Extent of Overlap with the CRAA**

| VP Viewshed | Full VP Viewshed Area ($m^2$) | VP Viewshed Area which Overlapped the CRAA ($m^2$) | Overlap % |
|---|---|---|---|
| **2016 – 17 Surveys** | | | |
| VP 1 | **6118695** | **3101699** | **50.69** |
| VP 2 | 4821163 | 2910863 | 60.38 |
| VP 3 | 4759939 | 2910762 | 61.15 |
| **2025 – 26 Surveys** | | | |
| VP 1 | 4,787,261 | 2,908,352 | 60.75 |
| VP 2 | 4,759,939 | 2,910,762 | 61.15 |
| VP 3 | 5,972,363 | 3,132,459 | 52.45 |

## Turbine Parameters

2.3.10 The turbine parameters used for the CRM were provided by the Applicant and are presented in Table 2-10.

**Table 2-10: Turbine Parameters used for CRM**

| Turbine Parameter | Value |
|---|---|
| Number of turbines in array | 16 |
| Blade (rotor) diameter (m) | 150 |
| Turbine radius (m) | 75 |
| Tower (hub) height (m) | 125 |
| Turbine height to maximum blade tip (m) | 200 |
| Air gap (distance from ground to lowest blade sweep) (m) | 50 |
| Maximum chord (m) | 4.2 |
| Rotation period (rpm) | 12.6 |
| Blade pitch (degrees) | 15 |

## Bird Parameters

2.3.11 Bird parameters (biometrics flight speeds, avoidance rates and breeding seasons) used in the CRM are included in Table 2-11. Bird length and wingspan for Greenland white-fronted goose, golden eagle and hen harrier are taken from Provan & Whitfield (2006), while those for greylag goose and gull species are taken from Cramp & Simons (1977; 1983); as measurements from the latter source were provided as ranges, the mid-range value was used. Flight speeds for golden eagle and hen harrier are taken from Provan & Whitfield (2006), while those of all other species are taken from Alerstam *et al*. (2007). The avoidance rate applied for each species is based on the recommended rate in NatureScot (2025c) guidance. For goose species, the generic non-breeding season (which is the period of interest) for wildfowl, including spring and autumn migratory periods, is defined in NatureScot (2025a) guidance as September to mid-May; therefore, the breeding season was defined as the period outwith this. The breeding season for all other species was based on Scottish Natural Heritage (2014) guidance.

**Table 2-11: Bird Parameters and Avoidance Rates of Species Scope into the Revised CRM**

| Species | Length (cm) | Wingspan (cm) | Flight Speed (m/s) | Avoidance Rate (%) | Breeding Season* |
|---|---|---|---|---|---|
| Greylag goose | 82.5 | 163.5 | 17.1 | 99.8 | 15 May to 31 August |

| Species | Length (cm) | Wingspan (cm) | Flight Speed (m/s) | Avoidance Rate (%) | Breeding Season* |
|---|---|---|---|---|---|
| Greenland white-fronted goose | 71.5 | 212.5 | 16.1 | 99.8 | 15 May to 31 August |
| Common gull | 41.0 | 120.0 | 13.4 | 99.2 | 01 April to 31 August |
| Herring gull | 61.0 | 146.5 | 12.8 | 99.5 | 01 April to 31 August |
| Great black-backed gull | 71.0 | 158.0 | 13.7 | 99.5 | 01 April to 31 August |
| Golden eagle | 81.5 | 212.0 | 15.3 | 99.0 | 01 February to 31 August |
| Hen harrier | 48.0 | 110.0 | 11.5 | 99.0 | 16 March to 15 August |
| White-tailed eagle | 80.0 | 220.0 | 12.0 | 95.0 | 15 February to 31 August |
| Peregrine | 44.5 | 105.0 | 16.0 | 98.0 | 1 March to 15 August |

*Breeding season was based on SNH (2014), except for goose species, which was based on the period outwith the generic migratory and wintering (i.e., non-breeding season) period for waterfowl in NatureScot (2025a) guidance

### Step-by-step Calculation

2.3.12 Bird and turbine parameters were used to calculate the probability of collision if a bird passed through the rotor swept area. Flight seconds within the CRAA were aggregated by VP and season (breeding or non-breeding) for each species. The same was done for the number of seconds surveyed in each VP across species-specific seasons (Table 2-11).

2.3.13 A calculation of effort for each VP in each season was calculated by multiplying the number of seconds surveyed by the area of overlap with the envelope ($m^2$) of the VP. A weighting of this effort was calculated by dividing the effort of each VP in each season by the sum of the total effort across all VPs and seasons.

2.3.14 Flight activity per second surveyed per $m^2$ was calculated by dividing the flight seconds within the CRAA by the effort. Weighted flight activity per second was calculated by multiplying the output of this by the respective weighting factor. The sum of weighted flight activity then constituted the flight activity per second per $m^2$ within the wind farm.

2.3.15 The sum of weighted flight activity was then multiplied by the CRAA to get an estimate of bird activity per second and then multiplied by the number of seconds of daylight in each species-specific breeding and non-breeding season to get an estimate of occupancy in seconds during each of these seasons.

2.3.16 The proportion of birds flying at risk height is the proportion of birds between the lowest and highest points of a rotor, measured relative to the rotor base.

2.3.17 To estimate the number of birds flying through rotors, additional information is required on the number of turbines, the rotor radius and flight speed of the species being observed.

2.3.18 To calculate how many birds are expected to pass through rotors, the density (Dv) of birds in the airspace at PCH is obtained by multiplying the areal density, i.e. the density of birds per unit area, looking down from above, by the proportion of birds which are flying at PCH ($Q_{2R}$), to convert to a volume density. The number of bird transits is also proportional to the flight speed of the birds, i.e., faster-flying birds travel further in a given unit of time and would therefore pass through more rotors.

2.3.19 The likely number of flights through rotors across the CRAA is multiplied by the risk of collision for each single bird transit through a rotor to yield an estimate of total potential collision risk, including a factor to allow for the proportion of time that the wind turbines are operational. The default value for CRM is 85% operational time and was used for the Proposed Varied Development. However, the UK Government publishes load factor numbers which can be used to provide a realistic output, using best scientific evidence. The load factor is calculated as a rolling average of the past five years using data (on an “Unchanged Configuration Basis”) from the Digest of UK Energy Statistics published by

the Department for Energy Security and Net Zero (DESNZ). The most recent estimate, using statistics from 2020-2024, wind is 25.7% for onshore wind (UK Government, 2025). This leads to a highly precautionary approach and result.

2.3.20 Load factors have been increasing over time due to technological innovation. DESNZ states in its Contracts for Difference (Standard Terms) Regulations 2014 document (UK Government, 2024) that the load factor for new build projects (for delivery years 2026-2029) is 44.8% for onshore wind (>5MW).

2.3.21 The preceding stages of the CRM assume that birds take no avoiding action in response to wind turbines, whereas in reality, birds typically take effective action to avoid collision with wind turbines. The species-specific avoidance rates specified in Table 2.10 (which is based on NatureScot, 2025c guidance) were applied as the final stage of the CRM.

# 3 Results

## 3.1 Desk Study

### Designated Sites of Ornithological Importance

As described in Chapter 9 of the 2018 EIA for the Consented Development, there are no statutory or non-statutory sites designated for ornithological interests within the boundary of the Proposed Varied Development. However, there are two SPAs within 20km:

- Kintyre Goose Roosts SPA, which is also a Ramsar site and includes Tangy Loch SSSI, Kintyre Goose Lochs SSSI and Rhunahaorine Point SSSI, is located approximately 380m to the south-east of the Proposed Varied Development (at the closest point); and
- Arran Moors SPA, which is also a SSSI, is located approximately 19.4km to the east of the Proposed Varied Development (at the closest point).
- A summary of these sites and their qualifying features is presented in Table 3.1. No additional statutory sites of ornithological importance (or changes to existing sites) were identified within 20km of the Proposed Varied Development, although updated distances are included in Table 3.1.

**Table 3-1: Designated Sites of Ornithological Importance within 20km, listed in order of proximity to the Proposed Varied Development**

| Site Name and Designation(s) | Qualifying Features | Distance from Proposed Varied Development* |
|---|---|---|
| Kintyre Goose Roosts SPA (Scottish Natural Heritage (SNH), 1998) | Non-breeding Greenland white-fronted goose | 380m |
| Kintyre Goose Roosts Ramsar site (NatureScot, 2025d) | Non-breeding Greenland white-fronted goose | 380m |
| Tangy Loch SSSI (SNH, 2008) | Non-breeding Greenland white-fronted goose | 500m |
| Kintyre Goose Lochs SSSI (SNH, 2011a) | Non-breeding Greenland white-fronted goose | 500m |
| Rhunahaorine Point SSSI (SNH, 2011b) | Breeding little tern | 19.2km |
| Arran Moors SPA (SNH, 2003) | Breeding hen harrier | 19.4km |

* Approximate distance at closest point

### Data Requests.

3.1.1 The ARSG provided records of four Schedule 1-listed breeding raptor species as well as details of a fifth that was considered to be establishing a territory in 2025. Further details of these species are included in **Confidential Annex, Technical Appendix 6.3**: Confidential Ornithology Annex.

3.1.2 The ARSG also returned records of a further four breeding species recorded within 2km of the Site that are not Schedule 1-listed. Details are provided in Table 3.2.

**Table 3-2: Summary of Non-sensitive Breeding Bird Records within 2km of the Site provided by ARSG**

| Species | Site Name | Grid Reference(s) |
|---|---|---|
| Buzzard | Low Park | NR7026 and NR6925 |
| | Tangy | NR6527 |

| Species | Site Name | Grid Reference(s) |
|---|---|---|
| Tawny owl | Birch Wood | NR6926 |
| | Largiemore Farm | NR6825 |
| | Lussa Forest | NR7127 |
| Kestrel | Lussa Forest | NR7127 |
| | Gobagrennan | NR7028 |
| | Linda Louise Wood | NR6826 |
| Raven | Killocraw | NR6529 and NR6530 |
| | Skerablin Loch | NR7026 |

### Data Review

3.1.3 The EIA Report and subsequent Additional Environmental Information (AEI) Reports (Belltown Power, 2025b; 2026) include detailed relevant information on Greenland white-fronted goose. This also includes a detailed assessment of cumulative barrier effects, which informed the OIA presented in **Volume 2, Chapter 6** of the Tangy IV Wind Farm S36C EIA Report and within the Kintyre Goose Roosts SPA Habitats Regulations Appraisal (HRA) presented in **Volume 4, Technical Appendix 6.2**.

3.1.4 A review of the desk study information and the breeding-season field surveys undertaken for the Cnoc Buidhe Wind Energy Hub found confirmed breeding for osprey and hen harrier, with no confirmed breeding by any other Schedule 1 or Annex I raptor species within the survey area or its defined 2km breeding-raptor buffer.

3.1.5 Surveys confirmed that osprey is an established breeding species in the area. A known nest located within the 2 km raptor study buffer has been continuously occupied since 2017, producing more than nine young in five years. The nest was confirmed to be occupied and successful in both 2022 and 2023, with repeated observations of adults foraging and returning to the nest throughout the breeding season.

3.1.6 Hen harrier was the most frequently recorded Schedule 1 / Annex I raptor and showed consistent breeding activity in both years of survey.

3.1.7 In 2022, a total of four hen harrier breeding attempts were documented, three of which involved repeated food-passes, confirming active nests. Breeding was centred around suitable moorland habitats, particularly near Lussa Loch. In 2023, hen harrier again bred within the study area, with two successful breeding attempts recorded, as well as two further attempts of uncertain or unsuccessful outcome. Historical data from the Argyll Raptor Study Group also identify several historic territories located east and north of the site.

3.1.8 Black grouse were present in the wider landscape, but no confirmed breeding occurred within the study area in the most recent survey year.

3.1.9 Relevant information on Greenland white-fronted goose, including a detailed cumulative barrier effects assessment, is presented within the Cnoc Buidhe Wind Energy Hub EIA Report and subsequent AEI Reports (Belltown Power, 2025b;2026). These assessments were used to inform both the OIA (V**olume 2, Chapter 6**) and the HRA (V**olume 4, Technical Appendix 6.1**).

## 3.2 Field Surveys

### 3.2.1 Vantage Point Surveys

3.2.1 A total of 320 flights by 19 target species were recorded during the 2025-26 VP surveys for the Proposed Varied Development. A summary of target species flights is presented in

Table 3-3; flight lines are shown in **Volume 3a, Figures 6.1** to **6.16** of the Tangy IV Wind Farm S36C EIA Report. Full details of each target species flight except hen harrier are presented in **Appendix D** of this report. As hen harrier flights may relate to breeding territories, details are included in **Confidential Annex, Technical Appendix 6.3**: Confidential Ornithology Annex.

**Table 3-3: Summary of Target Species Flights Recorded during the 2025-26 VP Surveys for the Proposed Varied Development**

| Species | 2025 Breeding season (Apr to Aug) | | 2025-26 Non-breeding season (Sep to Feb) | | 2026 Spring Migration | | Totals | | Figure No.(s) |
|---|---|---|---|---|---|---|---|---|---|
| | No. of Flights | No. of Birds per Flight | No. of Flights | No. of Birds per Flight | No. of Flights | No. of Birds per Flight | No. of Flights | No. of Birds per Flight | |
| Greylag goose | 13 | 2-63 | 16 | 1-61 | 3 | 1-4 | 32 | 1-63 | 6.3; 6.4 |
| Greenland white-fronted goose | 0 | - | 12 | 2-175 | 0 | - | 12 | 2-175 | 6.5 |
| Wigeon | 0 | - | 1 | 3 | 0 | - | 1 | 3 | 6.4 |
| Mallard | 2 | 1-13 | 1 | 3 | 2 | 2 | 5 | 1-13 | 6.3; 6.4 |
| Teal | 0 | - | 1 | 4 | 0 | - | 1 | 4 | 6.4 |
| Ring-necked duck | 0 | - | 2 | 4-5 | 0 | - | 2 | 4-5 | 6.4 |
| Tufted duck | 0 | - | 3 | 1-2 | 0 | - | 3 | 1-2 | 6.4 |
| Goldeneye | 0 | - | 3 | 1-6 | 0 | - | 3 | 1-6 | 6.4 |
| Oystercatcher | 1 | 2 | 0 | - | 0 | - | 1 | 2 | 6.6 |
| Snipe | 1 | 1 | 4 | 1-11 | 0 | - | 5 | 1-11 | 6.6; 6.7 |
| Common sandpiper | 3 | 1 | 0 | - | 0 | - | 3 | 1 | 6.6 |
| Common gull | 63 | 1-12 | 12 | 1-90 | 44 | 1-24 | 119 | 1-90 | 6.8; 6.10 |
| Great black-backed gull | 1 | 1 | 2 | 1 | 13 | 15-390 | 16 | 1-390 | 6.9; 6.10 |
| Herring gull | 15 | 1-10 | 12 | 1-40 | 23 | 1-46 | 50 | 1-46 | 6.9; 6.10 |
| Lesser black-backed gull | 8 | 1-2 | 0 | - | 3 | 1-3 | 11 | 1-3 | 6.9 |
| Golden eagle | 5 | 1-2 | 0 | - | 1 | 1 | 6 | 1-2 | 6.11 |
| Hen harrier | 26 | 1-4 | 2 | 1 | 1 | 1 | 29 | 1-4 | 6.12; 6.20 (Confidential) |
| White-tailed eagle | 2 | 1 | 1 | 1 | 0 | - | 3 | 1 | 6.11; 6.12 |
| Merlin | 0 | - | 1 | 1 | 0 | - | 32 | 1 | 6.12 |

### 3.2.2 Roosting Goose Surveys

3.1 Greenland white-fronted goose was regularly recorded at Tangy Loch during the 2025-26 roosting goose surveys carried out for the Proposed Varied Development. A summary of these recordings is provided in Table 3.3 and flights are shown in **Volume 3a, Figure 6.17** of the Tangy IV Wind Farm S36C EIA Report.

3.2 Other species recorded during the roosting goose surveys included Canada goose, greylag goose, wigeon, mallard, ring-necked duck, tufted duck, goldeneye, cormorant, sparrowhawk, barn owl and tawny owl. These are summarised in Table 3.41 (flights) and Table 3.5 (birds on Tangy Loch). Full results of the surveys are provided in **Appendix E** of this report.

**Table 3-4: Summary of Greenland White-Fronted Geese Registrations during the 2025/2026 Roosting Goose Surveys**

| Visit No. | Dawn/ Dusk Survey | Survey Date | Survey Start Time | Survey End Time | Total count of Birds on Tangy Loch | Evidence of Roosting on Tangy Loch? | Summary of Registrations |
|---|---|---|---|---|---|---|---|
| 1 | Dawn | 17/10/2025 | 06:28 | 07:28 | 191 | Yes | Approximately 191 Greenland white-fronted geese were roosting on Tangy Loch at the start of the survey and departed at 06:33 and flew south-west; the count was an estimate due to lack of light. |
| 2 | Dusk | 27/10/2025 | 15:33 | 17:33 | 288 | Yes | A flock of 87 Greenland white-fronted goose flew in from the south-west at 16:30 and circled Tangy Loch for a period before landing. These birds were joined by three additional flocks (numbering 170, 19 and 12 birds) which flew onto the loch from the south between 16:39 and 17:09. |
| 3 | Dawn | 12/11/2025 | 06:20 | 08:40 | 0 | No | No Greenland white-fronted geese observed. |
| 4 | Dusk | 25/11/2025 | 15:00 | 17:45 | c.630 | Possible | Several skeins of Greenland white-fronted geese were observed flying over Tangy Loch; approximately five skeins totalling an estimated 630 birds landed on the loch though most, possibly all, departed after dark, flying north-east in the direction of Lussa Loch. |
| 5 | Dawn | 11/12/2025 | 07:15 | 09:45 | 201 (minimum count) | Yes | Several hundred Greenland white-fronted geese were present on Tangy Loch at the start of the survey, whilst still dark, but precise numbers could not be determined due to lack of light. Birds departed between 07:29 and 08:14, with the majority of birds flying south-southeast, A skein of 200 birds was also observed to the east of Tangy Loch, flying south from the direction of Lussa Loch, indicating that additional birds may have roosted there. |
| 6 | Dusk | 21/12/2025 | 14:45 | 17:30 | c.1,556 | Yes | Seven skeins of Greenland white-fronted geese totalling an estimated 1,556 birds landed on Tangy Loch between 16:31 and 16:57, with an additional skein of 200 birds seen flying in the direction of Lussa Loch during this period. Approximately 1,200 birds departed the loch at 17:01, flying east-northeast in the direction of Lussa Loch, with 200-300 birds still present on the loch when the survey ended (due to lack of light). |
| 7 | Dawn | 09/01/2026 | 07:10 | 09:20 | 0 | No | No Greenland white-fronted geese were observed on Tangy Loch. Four skeins of 2,000, 500, 56 and 400 birds (the larger two mixed with greylag geese (Anser anser)) were recorded flying from the direction of Lussa Loch, one of which (the smallest) flew south-west over Tangy Loch, with the remaining three to the east of Tangy Loch, flying south-southwest. |
| 8 | Dusk | 20/01/2026 | 15:30 | 17:45 | 0 | No | No Greenland white-fronted geese were observed on Tangy Loch. A flock of birds was heard (but not seen) to the east of Tangy Loch flying north towards Lussa Loch and a skein of at least 100 birds was observed flying north-east over Tangy Loch towards Lussa Loch. |
| 9 | Dawn | 11/02/2026 | 06:30 | 08:45 | 250 | Yes | Up to 250 birds were roosting on Tangy Loch at the start of the survey and departed at 07:03, flying east. A skein of 150 birds was also observed flying west-southwest over Tangy Loch at 07:16. |

| Visit No. | Dawn/ Dusk Survey | Survey Date | Survey Start Time | Survey End Time | Total count of Birds on Tangy Loch | Evidence of Roosting on Tangy Loch? | Summary of Registrations |
|---|---|---|---|---|---|---|---|
| 10 | Dusk | 24/02/2026 | 16:40 | 19:15 | 1,487 | No | Five skeins of Greenland white-fronted geese, totalling approximately 1,487 birds, landed on Tangy Loch between 17:57 and 18:15, but all birds departed at 18:19, flying east then north-east towards Lussa Loch. Two skeins numbering 300 and eight birds were also observed flying over (but not landing on) Tangy Loch at 17:50 and 18:25 respectively, flying north-east towards Lussa Loch. |
| 11 | Dawn | 11/03/2026 | 05:15 | 08:20 | 0 | No | Greenland white-fronted geese were heard calling to the east-northeast of Tangy Loch but were not seen. The calls were distant, but the birds appeared to be moving south. |
| 12 | Dusk | 23/03/2026 | 17:10 | 19:45 | 1,315 | Yes | Forty-three Greenland white-fronted geese were present on Tangy Loch at the start of the survey. Ten skeins totalling 1,272 birds flew in, mostly from the south (two from the north) and landed on the loch between 18:02 and 18:41 to join those already present. Birds tended to congregate at the western end of the loch upon landing before spreading out, mostly drifting towards the eastern end of the loch. All birds were still present at end of the survey. An additional flock of 12 Greenland white-fronted geese was observed to the south-east of Tangy Loch at 18:54, flying north-east towards Lussa Loch. |
| 13 | Dawn | 09/04/2026 | 05:00 | 08:30 | 6 | Yes | Six Greenland white-fronted geese were roosting at the western shore of Tangy Loch at the start of the survey. These departed at 07:16, flying south-west then south. |
| 14 | Dusk | 21/04/2026 | 19:20 | 22:20 | 0 | No | No Greenland white-fronted geese observed. |
| 15 | Dawn | 08/05/2026 | 05:00 | 07:00 | 0 | No | No Greenland white-fronted geese observed. |

**Table 3-5: Summary of Other Species Flights during the 2025/2026 Goose Roost Surveys**

| Survey Date | Species | No. of Flights | No. of Birds per Flight |
|---|---|---|---|
| 24/02/2026 | Canada goose | 3 | 2-11 |
| 11/02/2026 | Canada goose | 1 | 12 |
| 09/04/2026 | Ross's goose | 1 | 1 |
| 27/10/2025 | Greylag goose | 1 | 72 |
| 25/11/2025 | Greylag goose | 3 | 1-200 |
| 11/12/2025 | Greylag goose | 2 | 15-50 |
| 09/01/2026 | Greylag goose | 5 | 2-70 |
| 20/01/2026 | Greylag goose | 1 | 6 |
| 11/02/2026 | Greylag goose | 3 | 1 |
| 09/04/2026 | Greylag goose | 2 | 21-31 |
| 09/04/2026 | Tundra bean goose | 1 | 1 |
| 09/04/2026 | Common gull | 1 | 14 |
| 23/03/2026 | Hen harrier | 1 | 1 |
| 11/12/2025 | White-tailed eagle | 2 | 1 |

**Table 3.5: Summary of Registrations of Species Not in Flight during the 2025/2026 Goose Roost Surveys**

| Survey Date | Species | Peak No. of Birds |
|---|---|---|
| 24/02/2026 | Canada goose | 2 |
| 09/04/2026 | Canada goose | 10 |
| 09/04/2026 | Ross's goose | 1 |
| 09/01/2026 | Greylag goose | 86 |
| 23/03/2026 | Greylag goose | 1 |
| 09/04/2026 | Greylag goose | 44 |
| 21/04/2026 | Greylag goose | 5 |
| 09/04/2026 | Tundra bean goose | 1 |
| 25/11/2025 | Wigeon | 2 |
| 25/11/2025 | Mallard | 2 |
| 11/12/2025 | Mallard | 2 |
| 21/12/2025 | Mallard | 2 |
| 09/01/2026 | Mallard | 3 |
| 20/01/2026 | Mallard | 2 |
| 24/02/2026 | Mallard | 6 |
| 09/04/2026 | Mallard | 8 |
| 21/04/2026 | Mallard | 4 |
| 11/12/2025 | Ring-necked duck | 4 |
| 09/01/2026 | Ring-necked duck | 4 |
| 24/02/2026 | Ring-necked duck | 5 |
| 23/03/2026 | Ring-necked duck | 5 |
| 09/04/2026 | Ring-necked duck | 4 |
| 12/11/2025 | Tufted duck | 18 |
| 25/11/2025 | Tufted duck | 12 |
| 11/12/2025 | Tufted duck | 12 |

| Survey Date | Species | Peak No. of Birds |
|---|---|---|
| 21/12/2025 | Tufted duck | 11 |
| 20/01/2026 | Tufted duck | 8 |
| 24/02/2026 | Tufted duck | 6 |
| 09/04/2026 | Tufted duck | 8 |
| 21/04/2026 | Tufted duck | 3 |
| 12/11/2025 | Goldeneye | 3 |
| 25/11/2025 | Goldeneye | 10 |
| 11/12/2025 | Goldeneye | 11 |
| 21/12/2025 | Goldeneye | 12 |
| 09/01/2026 | Goldeneye | 8 |
| 20/01/2026 | Goldeneye | 3 |
| 24/02/2026 | Goldeneye | 20 |
| 09/04/2026 | Goldeneye | 20 |
| 21/04/2026 | Goldeneye | 4 |
| 21/04/2026 | Common sandpiper | 2 |
| 21/04/2026 | Common gull | 18 |
| 24/02/2026 | Cormorant | 2 |
| 25/11/2025 | Sparrowhawk | 1 |
| 09/01/2026 | Barn owl | 1 |
| 09/01/2026 | Tawny owl | 1 |
| 08/05/2026 | Black-throated diver | 1 |

# 4 CRM Results

4.1.1 Table 4.1 details the results of the revised CRM for the nine species scoped in, based on VP surveys completed between 2016-17 and 2025-26 and the turbine parameters for the Proposed Varied Development, using the standard 85% operational time.

4.1.2 CRM was conducted for **nine species** identified as being target species. Analysis was conducted for the sixteen-turbine layout over the 50-year lifetime of the Proposed Varied Development.

4.1.3 It should be noted that the modelling is generic and highly precautionary in biological terms because it allows for a scenario where a bird collides with a turbine multiple times. A bird can only die once, but the model works on the assumption that it is replaced instantly in the population, which is not realistic in any circumstances. As such, predicted collision risk should be treated as indicative, and likely to be higher than reality.

**Table 4-1: CRM Results per Species Based on 2016-17 and 2025-26 VP Survey Data and 85% Operational Time**

| Species | Breeding Season Collision Risk | Non-breeding Season Collision Risk | Mean Collisions Per Year | Mean Years Per Collision | Mean Collisions during Operational Lifetime (50 Years) |
|---|---|---|---|---|---|
| | | | **2016-2017** | | |
| Greylag goose | 0.00 | 3.05 | 3.05 | 0.33 | 152.73 |
| Greenland white-fronted goose | 0.00 | 0.10 | 0.10 | 10 | 5.15 |
| Common gull | - | - | - | - | - |
| Herring gull | 0.01 | 0.00 | 0.01 | 100 | 0.72 |
| Great black-backed gull | - | - | - | - | - |
| Golden eagle | 0.03 | 0.00 | 0.03 | 33.33 | 1.68 |
| Hen harrier | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 |
| White-tailed eagle | N/A | N/A | N/A | N/A | N/A |
| Peregrine | 0.11 | 0.00 | 0.11 | 9.09 | 5.34 |
| | | | **2025-2026** | | |
| Greylag goose | 0.06 | 0.30 | 0.36 | 2.78 | 18.13 |
| Greenland white-fronted goose | 0.00 | 0.07 | 0.07 | 14.29 | 3.39 |
| Common gull | 0.30 | 0.05 | 0.35 | 2.86 | 17.48 |
| Herring gull | 0.89 | 0.00 | 0.89 | 1.12 | 44.56 |
| Great black-backed gull | 0.30 | 0.03 | 0.33 | 3.03 | 16.59 |
| Golden eagle | 0.04 | 0.00 | 0.04 | 25 | 1.82 |
| Hen harrier | 0.04 | 0.00 | 0.04 | 25 | 2.11 |
| White-tailed eagle | 0.08 | 0.00 | 0.08 | 12.50 | 4.10 |
| Peregrine | N/A | N/A | N/A | N/A | N/A |

** - height band seconds not recorded (before new guidance was in place stating that gulls were a target species (NatureScot 2025))*

*NA – no flightlines were recorded*

# 5 References

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## Appendix A Details of Species Included in Report

**Table A.5-1: Scientific Names and Conservation Designations of Species named in Report**

| Species* | | Schedule 1/Annex I** | Conservation Listings*** |
|---|---|---|---|
| Common Name | Scientific Name | | |
| Canada goose | *Branta canadensis* | - | |
| Greylag goose | *Anser anser* | - | Amber |
| Tundra bean goose | *Anser serrirostris* | - | Amber |
| Greenland white-fronted goose | *Anser albifrons flavirostris* | Ann1 | Red; SBL |
| Shelduck | *Tadorna tadorna* | - | Amber |
| Wigeon | *Mareca penelope* | - | Amber |
| Mallard | *Anas platyrhynchos* | - | Amber |
| Teal | *Anas crecca* | - | Amber |
| Ring-necked duck | *Aythya collaris* | - | - |
| Tufted duck | *Aythya fuligula* | - | Green |
| Goldeneye | *Bucephala clangula* | - | Red |
| Oystercatcher | *Haematopus ostralegus* | - | Amber |
| Curlew | *Numenius arquata* | - | Red |
| Woodcock | *Scolopax rusticola* | - | Red |
| Snipe | *Gallinago gallinago* | - | Amber |
| Common sandpiper | *Actitis hypoleucos* | - | Amber |
| Common gull | *Larus canus* | - | Red |
| Great black-backed gull | *Larus marinus* | - | Red |
| Herring gull | *Larus argentatus* | - | Red; SBL |
| Lesser black-backed gull | *Larus fuscus* | - | Amber |
| Little tern | *Sternula albifrons* | Sch1.1; Ann1 | Amber; SBL |
| Red-throated diver | *Gavia stellata* | Sch1.1; Ann1 | Green; SBL |
| Black-throated diver | *Gavia arctica* | Sch1.1; Ann 1 | |
| Cormorant | *Phalacrocorax carbo* | - | Green |
| Golden eagle | *Aquila chrysaetos* | Sch1.1/1A/A1; Ann1 | Green; SBL |

| Species* | | Schedule 1/Annex I** | Conservation Listings*** |
|---|---|---|---|
| Common Name | Scientific Name | | |
| Sparrowhawk | *Accipiter nisus* | | Amber |
| Hen harrier | *Circus cyaneus* | Sch1.1 & 1A; Ann1; | Red; SBL |
| White-tailed eagle | *Haliaeetus albicilla* | Sch1.1, 1A & A1; Ann1 | Amber; SBL |
| Buzzard | *Buteo buteo* | - | Green |
| Barn owl | *Tyto alba* | Sch1.1 | Green; SBL |
| Tawny owl | *Strix aluco* | - | Amber |
| Kestrel | *Falco tinnunculus* | - | Amber; SBL |
| Merlin | *Falco columbarius* | Sch1.1; Ann1 | Red; SBL |
| Peregrine | *Falco peregrinus* | Sch1.1; Ann1 | Green |
| Raven | *Corvus corax* | - | Green |

*Species names and order follow the British List maintained by the BOU (2022);.**Sch1.1 = listed on Schedule 1 part 1 of the Wildlife and Countryside Act 1981 (as amended); Ann1 = listed on Annex I of the EU Birds Directive. ***Red, Amber and Green = UK Birds of Conservation Concern (BoCC) Red, Amber and Green lists respectively (Stanbury *et al.*, 2021); SBL = included on the Scottish Biodiversity List.

**Table B.5-2: Vantage Point Survey Details (2025-26)**

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 28-Apr-25 | 2 | 09:00 | 12:00 | 1 | 3 | 3 | 225 | 0 | 6 | 2 | 2 |
| 28-Apr-25 | 2 | 09:00 | 12:00 | 2 | 3 | 2 | 225 | 0 | 6 | 2 | 2 |
| 28-Apr-25 | 2 | 09:00 | 12:00 | 3 | 3 | 2 | 225 | 1 | 7 | 2 | 2 |
| 28-Apr-25 | 2 | 09:00 | 12:00 | 1 | 3 | 3 | 225 | 0 | 7 | 1 | 2 |
| 28-Apr-25 | 2 | 09:00 | 12:00 | 2 | 3 | 3 | 225 | 0 | 6 | 2 | 2 |
| 28-Apr-25 | 2 | 09:00 | 12:00 | 3 | 3 | 3 | 225 | 1 | 6 | 2 | 2 |
| 28-Apr-25 | 1 | 09:00 | 12:00 | 1 | 3 | 3 | 180 | 1 | 8 | 2 | 2 |
| 28-Apr-25 | 1 | 09:00 | 12:00 | 2 | 3 | 3 | 180 | 0 | 8 | 2 | 2 |
| 28-Apr-25 | 1 | 09:00 | 12:00 | 3 | 3 | 3 | 180 | 0 | 6 | 2 | 2 |
| 28-Apr-25 | 1 | 12:00 | 15:00 | 1 | 3 | 3 | 180 | 0 | 6 | 2 | 2 |
| 28-Apr-25 | 1 | 12:00 | 15:00 | 2 | 3 | 3 | 180 | 0 | 5 | 2 | 2 |
| 28-Apr-25 | 1 | 12:00 | 15:00 | 3 | 3 | 3 | 180 | 0 | 7 | 2 | 2 |
| 01-May-25 | 3 | 09:00 | 12:00 | 1 | 3 | 3 | 315 | 1 | 8 | 1 | 2 |
| 01-May-25 | 3 | 09:00 | 12:00 | 2 | 3 | 3 | 270 | 1 | 8 | 0 | 0 |
| 01-May-25 | 3 | 09:00 | 12:00 | 3 | 3 | 2 | 270 | 0 | 7 | 2 | 2 |
| 01-May-25 | 3 | 12:00 | 15:00 | 1 | 3 | 3 | 315 | 0 | 5 | 2 | 2 |
| 01-May-25 | 3 | 12:00 | 15:00 | 2 | 3 | 3 | 315 | 0 | 4 | 2 | 2 |
| 01-May-25 | 3 | 12:00 | 15:00 | 3 | 3 | 3 | 315 | 0 | 5 | 2 | 2 |
| 27-May-25 | 1 | 14:00 | 17:00 | 1 | 3 | 3 | 225 | 0 | 7 | 2 | 2 |
| 27-May-25 | 1 | 14:00 | 17:00 | 2 | 3 | 3 | 225 | 0 | 2 | 2 | 2 |
| 27-May-25 | 1 | 14:00 | 17:00 | 3 | 3 | 3 | 225 | 0 | 6 | 2 | 2 |
| 27-May-25 | 2 | 18:00 | 21:00 | 1 | 3 | 2 | 225 | 0 | 7 | 2 | 2 |
| 27-May-25 | 2 | 18:00 | 21:00 | 2 | 3 | 2 | 225 | 0 | 7 | 2 | 2 |
| 27-May-25 | 2 | 18:00 | 21:00 | 3 | 3 | 2 | 225 | 0 | 7 | 2 | 2 |
| 28-May-25 | 1 | 08:30 | 11:30 | 1 | 3 | 2 | 225 | 0 | 5 | 2 | 2 |
| 28-May-25 | 1 | 08:30 | 11:30 | 2 | 3 | 2 | 270 | 0 | 5 | 2 | 2 |
| 28-May-25 | 1 | 08:30 | 11:30 | 3 | 3 | 2 | 270 | 0 | 7 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 28-May-25 | 3 | 13:00 | 16:00 | 1 | 3 | 2 | 225 | 0 | 5 | 2 | 2 |
| 28-May-25 | 3 | 13:00 | 16:00 | 2 | 3 | 2 | 225 | 0 | 6 | 2 | 2 |
| 28-May-25 | 3 | 13:00 | 16:00 | 3 | 3 | 3 | 225 | 0 | 6 | 2 | 2 |
| 29-May-25 | 2 | 05:30 | 08:30 | 1 | 3 | 2 | 225 | 1 | 6 | 2 | 2 |
| 29-May-25 | 2 | 05:30 | 08:30 | 2 | 3 | 2 | 225 | 0 | 6 | 2 | 2 |
| 29-May-25 | 2 | 05:30 | 08:30 | 3 | 3 | 1 | 225 | 0 | 8 | 1 | 1 |
| 29-May-25 | 3 | 09:00 | 12:00 | 1 | 3 | 2 | 225 | 1 | 8 | 0 | 0 |
| 29-May-25 | 3 | 09:00 | 12:00 | 2 | 3 | 2 | 225 | 1 | 8 | 0 | 0 |
| 29-May-25 | 3 | 09:00 | 12:00 | 3 | 3 | 2 | 225 | 0 | 5 | 2 | 0 |
| 24-Jun-25 | 2 | 08:55 | 11:55 | 1 | 3 | 2 | 270 | 1 | 8 | 0 | 1 |
| 24-Jun-25 | 2 | 08:55 | 11:55 | 2 | 3 | 2 | 270 | 0 | 5 | 2 | 2 |
| 24-Jun-25 | 2 | 08:55 | 11:55 | 3 | 3 | 2 | 270 | 0 | 6 | 2 | 2 |
| 24-Jun-25 | 2 | 12:30 | 15:30 | 1 | 3 | 3 | 270 | 1 | 6 | 2 | 2 |
| 24-Jun-25 | 2 | 12:30 | 15:30 | 2 | 3 | 4 | 270 | 0 | 6 | 2 | 2 |
| 24-Jun-25 | 2 | 12:30 | 15:30 | 3 | 3 | 4 | 270 | 0 | 6 | 2 | 2 |
| 25-Jun-25 | 3 | 09:00 | 12:00 | 1 | 3 | 2 | 180 | 0 | 7 | 2 | 2 |
| 25-Jun-25 | 3 | 09:00 | 12:00 | 2 | 3 | 2 | 180 | 1 | 6 | 2 | 1 |
| 25-Jun-25 | 3 | 09:00 | 12:00 | 3 | 3 | 2 | 180 | 0 | 6 | 2 | 2 |
| 25-Jun-25 | 3 | 12:30 | 15:30 | 1 | 3 | 3 | 180 | 0 | 8 | 2 | 2 |
| 25-Jun-25 | 3 | 12:30 | 15:30 | 2 | 3 | 4 | 225 | 1 | 8 | 1 | 2 |
| 25-Jun-25 | 3 | 12:30 | 15:30 | 3 | 3 | 4 | 225 | 2 | 8 | 1 | 2 |
| 25-Jun-25 | 1 | 16:45 | 19:45 | 1 | 3 | 3 | 270 | 0 | 7 | 2 | 2 |
| 25-Jun-25 | 1 | 16:45 | 19:45 | 2 | 3 | 4 | 270 | 0 | 7 | 2 | 2 |
| 25-Jun-25 | 1 | 16:45 | 19:45 | 3 | 3 | 3 | 270 | 2 | 8 | 1 | 1 |
| 26-Jun-25 | 1 | 08:45 | 11:45 | 1 | 3 | 4 | 270 | 0 | 5 | 2 | 2 |
| 26-Jun-25 | 1 | 08:45 | 11:45 | 2 | 3 | 5 | 270 | 0 | 4 | 2 | 2 |
| 26-Jun-25 | 1 | 08:45 | 11:45 | 3 | 3 | 5 | 270 | 0 | 4 | 2 | 2 |
| 23-Jul-25 | 2 | 12:00 | 15:00 | 1 | 3 | 3 | 270 | 0 | 8 | 1 | 1 |
| 23-Jul-25 | 2 | 12:00 | 15:00 | 2 | 3 | 3 | 270 | 0 | 8 | 1 | 2 |
| 23-Jul-25 | 2 | 12:00 | 15:00 | 3 | 3 | 3 | 270 | 0 | 8 | 1 | 1 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23-Jul-25 | 2 | 08:00 | 11:00 | 1 | 3 | 3 | 270 | 0 | 8 | 1 | 1 |
| 23-Jul-25 | 2 | 08:00 | 11:00 | 2 | 3 | 3 | 270 | 0 | 7 | 1 | 1 |
| 23-Jul-25 | 2 | 08:00 | 11:00 | 3 | 3 | 3 | 270 | 0 | 8 | 1 | 2 |
| 23-Jul-25 | 1 | 08:00 | 11:00 | 1 | 3 | 3 | 315 | 0 | 8 | 1 | 1 |
| 23-Jul-25 | 1 | 08:00 | 11:00 | 2 | 3 | 3 | 315 | 0 | 8 | 1 | 2 |
| 23-Jul-25 | 1 | 08:00 | 11:00 | 3 | 3 | 3 | 315 | 0 | 8 | 1 | 1 |
| 23-Jul-25 | 1 | 12:00 | 15:00 | 1 | 3 | 3 | 315 | 0 | 8 | 1 | 2 |
| 23-Jul-25 | 1 | 12:00 | 15:00 | 2 | 3 | 3 | 315 | 0 | 7 | 1 | 1 |
| 23-Jul-25 | 1 | 12:00 | 15:00 | 3 | 3 | 3 | 315 | 0 | 8 | 1 | 1 |
| 24-Jul-25 | 3 | 09:00 | 12:00 | 1 | 3 | 1 | 270 | 0 | 7 | 2 | 1 |
| 24-Jul-25 | 3 | 09:00 | 12:00 | 2 | 3 | 2 | 270 | 0 | 6 | 2 | 2 |
| 24-Jul-25 | 3 | 09:00 | 12:00 | 3 | 3 | 2 | 270 | 0 | 6 | 2 | 2 |
| 24-Jul-25 | 3 | 12:30 | 15:30 | 1 | 3 | 2 | 315 | 0 | 5 | 2 | 2 |
| 24-Jul-25 | 3 | 12:30 | 15:30 | 2 | 3 | 2 | 315 | 0 | 5 | 2 | 2 |
| 24-Jul-25 | 3 | 12:30 | 15:30 | 3 | 3 | 3 | 270 | 0 | 5 | 2 | 2 |
| 04-Aug-25 | 1 | 15:00 | 18:00 | 1 | 3 | 5 | 270 | 1 | 8 | 1 | 1 |
| 04-Aug-25 | 1 | 15:00 | 18:00 | 2 | 3 | 5 | 270 | 0 | 6 | 2 | 2 |
| 04-Aug-25 | 1 | 15:00 | 18:00 | 3 | 3 | 5 | 270 | 0 | 4 | 2 | 2 |
| 04-Aug-25 | 2 | 15:00 | 18:00 | 1 | 3 | 7 | 270 | 2 | 8 | 1 | 1 |
| 04-Aug-25 | 2 | 15:00 | 18:00 | 2 | 3 | 7 | 270 | 0 | 7 | 2 | 2 |
| 04-Aug-25 | 2 | 15:00 | 18:00 | 3 | 3 | 7 | 270 | 0 | 5 | 2 | 2 |
| 05-Aug-25 | 1 | 05:00 | 08:00 | 1 | 3 | 7 | 270 | 2 | 8 | 1 | 1 |
| 05-Aug-25 | 1 | 05:00 | 08:00 | 2 | 3 | 7 | 270 | 0 | 7 | 2 | 2 |
| 05-Aug-25 | 1 | 05:00 | 08:00 | 3 | 3 | 7 | 270 | 0 | 5 | 2 | 2 |
| 05-Aug-25 | 2 | 05:00 | 08:00 | 1 | 3 | 5 | 270 | 1 | 8 | 2 | 2 |
| 05-Aug-25 | 2 | 05:00 | 08:00 | 2 | 3 | 5 | 270 | 2 | 8 | 2 | 2 |
| 05-Aug-25 | 2 | 05:00 | 08:00 | 3 | 3 | 5 | 270 | 0 | 5 | 2 | 2 |
| 06-Aug-25 | 3 | 09:00 | 12:00 | 1 | 3 | 3 | 270 | 0 | 8 | 2 | 2 |
| 06-Aug-25 | 3 | 09:00 | 12:00 | 2 | 3 | 3 | 270 | 0 | 7 | 2 | 2 |
| 06-Aug-25 | 3 | 09:00 | 12:00 | 3 | 3 | 3 | 270 | 0 | 6 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 06-Aug-25 | 3 | 12:30 | 15:30 | 1 | 3 | 3 | 270 | 0 | 5 | 2 | 2 |
| 06-Aug-25 | 3 | 12:30 | 15:30 | 2 | 3 | 3 | 270 | 0 | 5 | 2 | 2 |
| 06-Aug-25 | 3 | 12:30 | 15:30 | 3 | 3 | 3 | 270 | 0 | 5 | 2 | 2 |
| 22-Sep-25 | 1 | 17:20 | 20:20 | 1 | 3 | 4 | 90 | 0 | 2 | 2 | 2 |
| 22-Sep-25 | 1 | 17:20 | 20:20 | 2 | 3 | 4 | 90 | 0 | 2 | 2 | 2 |
| 22-Sep-25 | 1 | 17:20 | 20:20 | 3 | 3 | 4 | 90 | 0 | 2 | 2 | 1 |
| 23-Sep-25 | 1 | 06:10 | 09:10 | 1 | 3 | 1 | 225 | 0 | 1 | 2 | 1 |
| 23-Sep-25 | 1 | 06:10 | 09:10 | 2 | 3 | 1 | 225 | 0 | 3 | 2 | 2 |
| 23-Sep-25 | 1 | 06:10 | 09:10 | 3 | 3 | 2 | 225 | 0 | 3 | 2 | 2 |
| 23-Sep-25 | 2 | 17:18 | 20:18 | 1 | 3 | 3 | 225 | 0 | 6 | 1 | 2 |
| 23-Sep-25 | 2 | 17:18 | 20:18 | 2 | 3 | 4 | 225 | 0 | 7 | 1 | 2 |
| 23-Sep-25 | 2 | 17:18 | 20:18 | 3 | 3 | 4 | 225 | 0 | 7 | 1 | 1 |
| 24-Sep-25 | 3 | 06:11 | 09:11 | 1 | 3 | 0 |  | 0 | 3 | 2 | 1 |
| 24-Sep-25 | 3 | 06:11 | 09:11 | 2 | 3 | 0 |  | 0 | 4 | 2 | 2 |
| 24-Sep-25 | 3 | 06:11 | 09:11 | 3 | 3 | 1 | 90 | 0 | 4 | 2 | 2 |
| 13-Oct-25 | 1 | 14:00 | 17:00 | 1 | 3 | 0 |  | 0 | 8 | 2 | 2 |
| 13-Oct-25 | 1 | 14:00 | 17:00 | 2 | 3 | 1 | 90 | 0 | 8 | 2 | 2 |
| 13-Oct-25 | 1 | 14:00 | 17:00 | 3 | 3 | 1 | 90 | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 1 | 09:00 | 12:00 | 1 | 3 | 0 |  | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 1 | 09:00 | 12:00 | 2 | 3 | 0 |  | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 1 | 09:00 | 12:00 | 3 | 3 | 1 | 315 | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 2 | 12:45 | 15:45 | 1 | 3 | 0 |  | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 2 | 12:45 | 15:45 | 2 | 3 | 1 | 315 | 0 | 8 | 2 | 2 |
| 14-Oct-25 | 2 | 12:45 | 15:45 | 3 | 3 | 2 | 315 | 0 | 8 | 2 | 2 |
| 15-Oct-25 | 2 | 16:22 | 19:22 | 1 | 3 | 3 | 180 | 0 | 7 | 2 | 2 |
| 15-Oct-25 | 2 | 16:22 | 19:22 | 2 | 3 | 3 | 180 | 0 | 7 | 2 | 2 |
| 15-Oct-25 | 2 | 16:22 | 19:22 | 3 | 3 | 2 | 180 | 0 | 7 | 2 | 2 |
| 15-Oct-25 | 2 | 06:55 | 09:55 | 1 | 3 | 2 | 225 | 0 | 7 | 2 | 2 |
| 15-Oct-25 | 2 | 06:55 | 09:55 | 2 | 3 | 2 | 225 | 0 | 8 | 2 | 2 |
| 15-Oct-25 | 2 | 06:55 | 09:55 | 3 | 3 | 2 | 225 | 0 | 8 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-Oct-25 | 3 | 12:35 | 15:35 | 1 | 3 | 1 | 90 | 0 | 8 | 2 | 1 |
| 16-Oct-25 | 3 | 12:35 | 15:35 | 2 | 3 | 2 | 90 | 0 | 8 | 2 | 2 |
| 16-Oct-25 | 3 | 12:35 | 15:35 | 3 | 3 | 2 | 90 | 0 | 7 | 2 | 2 |
| 16-Oct-25 | 3 | 09:00 | 12:00 | 1 | 3 | 3 | 225 | 0 | 6 | 2 | 2 |
| 16-Oct-25 | 3 | 09:00 | 12:00 | 2 | 3 | 3 | 180 | 0 | 6 | 2 | 2 |
| 16-Oct-25 | 3 | 09:00 | 12:00 | 3 | 3 | 3 | 180 | 0 | 6 | 2 | 1 |
| 17-Oct-25 | 3 | 07:55 | 10:55 | 1 | 3 | 1 | 90 | 0 | 7 | 2 | 2 |
| 17-Oct-25 | 3 | 07:55 | 10:55 | 2 | 3 | 3 | 90 | 0 | 8 | 2 | 2 |
| 17-Oct-25 | 3 | 07:55 | 10:55 | 3 | 3 | 3 | 90 | 0 | 8 | 2 | 2 |
| 10-Nov-25 | 2 | 13:10 | 16:10 | 1 | 3 | 3 | 225 | 0 | 7 | 2 | 2 |
| 10-Nov-25 | 2 | 13:10 | 16:10 | 2 | 3 | 3 | 225 | 0 | 7 | 2 | 2 |
| 10-Nov-25 | 2 | 13:10 | 16:10 | 3 | 3 | 3 | 225 | 0 | 7 | 2 | 2 |
| 11-Nov-25 | 1 | 08:50 | 11:50 | 1 | 3 | 4 | 90 | 4 | 8 | 2 | 2 |
| 11-Nov-25 | 1 | 08:50 | 11:50 | 2 | 3 | 4 | 90 | 4 | 8 | 2 | 2 |
| 11-Nov-25 | 1 | 08:50 | 11:50 | 3 | 3 | 4 | 90 | 3 | 7 | 2 | 2 |
| 11-Nov-25 | 1 | 12:20 | 15:20 | 1 | 3 | 4 | 90 | 4 | 8 | 1 | 2 |
| 11-Nov-25 | 1 | 12:20 | 15:20 | 2 | 3 | 4 | 90 | 3 | 8 | 1 | 2 |
| 11-Nov-25 | 1 | 12:20 | 15:20 | 3 | 3 | 4 | 180 | 4 | 8 | 1 | 1 |
| 26-Nov-25 | 3 | 13:00 | 16:00 | 1 | 3 | 5 | 180 | 4 | 8 | 1 | 2 |
| 26-Nov-25 | 3 | 13:00 | 16:00 | 2 | 3 | 4 | 180 | 3 | 8 | 1 | 2 |
| 26-Nov-25 | 3 | 13:00 | 16:00 | 3 | 3 | 4 | 180 | 3 | 8 | 1 | 2 |
| 26-Nov-25 | 2 | 09:30 | 12:30 | 1 | 3 | 4 | 180 | 0 | 7 | 2 | 2 |
| 26-Nov-25 | 2 | 09:30 | 12:30 | 2 | 3 | 5 | 180 | 0 | 7 | 2 | 2 |
| 26-Nov-25 | 2 | 09:30 | 12:30 | 3 | 3 | 5 | 180 | 0 | 6 | 2 | 2 |
| 27-Nov-25 | 3 | 08:30 | 11:30 | 1 | 3 | 3 | 225 | 3 | 8 | 1 | 2 |
| 27-Nov-25 | 3 | 08:30 | 11:30 | 2 | 3 | 2 | 270 | 4 | 8 | 1 | 2 |
| 27-Nov-25 | 3 | 08:30 | 11:30 | 3 | 3 | 3 | 270 | 3 | 8 | 1 | 2 |
| 09-Dec-25 | 2 | 12:40 | 15:40 | 1 | 3 | 6 | 180 | 3 | 8 | 1 | 1 |
| 09-Dec-25 | 2 | 12:40 | 15:40 | 2 | 3 | 7 | 180 | 3 | 8 | 2 | 2 |
| 09-Dec-25 | 2 | 12:40 | 15:40 | 3 | 3 | 7 | 180 | 3 | 7 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-Dec-25 | 1 | 12:20 | 15:20 | 1 | 3 | 5 | 270 | 2 | 7 | 2 | 2 |
| 10-Dec-25 | 1 | 12:20 | 15:20 | 2 | 3 | 5 | 270 | 0 | 6 | 2 | 2 |
| 10-Dec-25 | 1 | 12:20 | 15:20 | 3 | 3 | 5 | 270 | 0 | 7 | 2 | 2 |
| 10-Dec-25 | 1 | 08:50 | 11:50 | 1 | 3 | 5 | 225 | 2 | 6 | 2 | 2 |
| 10-Dec-25 | 1 | 08:50 | 11:50 | 2 | 3 | 5 | 270 | 0 | 6 | 2 | 2 |
| 10-Dec-25 | 1 | 08:50 | 11:50 | 3 | 3 | 5 | 270 | 3 | 7 | 2 | 2 |
| 22-Dec-25 | 3 | 09:10 | 12:10 | 1 | 3 | 3 | 90 | 2 | 7 | 2 | 2 |
| 22-Dec-25 | 3 | 09:10 | 12:10 | 2 | 3 | 4 | 90 | 0 | 7 | 2 | 2 |
| 22-Dec-25 | 3 | 09:10 | 12:10 | 3 | 3 | 4 | 90 | 0 | 7 | 2 | 2 |
| 22-Dec-25 | 3 | 12:40 | 15:40 | 1 | 3 | 4 | 90 | 0 | 7 | 2 | 2 |
| 22-Dec-25 | 3 | 12:40 | 15:40 | 2 | 3 | 4 | 90 | 0 | 8 | 2 | 2 |
| 22-Dec-25 | 3 | 12:40 | 15:40 | 3 | 3 | 3 | 90 | 0 | 7 | 2 | 2 |
| 23-Dec-25 | 2 | 08:55 | 11:55 | 1 | 3 | 3 | 90 | 0 | 7 | 2 | 2 |
| 23-Dec-25 | 2 | 08:55 | 11:55 | 2 | 3 | 3 | 90 | 2 | 7 | 2 | 2 |
| 23-Dec-25 | 2 | 08:55 | 11:55 | 3 | 3 | 3 | 90 | 0 | 7 | 2 | 2 |
| 07-Jan-26 | 2 | 13:00 | 16:00 | 1 | 3 | 4 | 315 | 0 | 5 | 2 | 2 |
| 07-Jan-26 | 2 | 13:00 | 16:00 | 2 | 3 | 3 | 315 | 0 | 5 | 2 | 2 |
| 07-Jan-26 | 2 | 13:00 | 16:00 | 3 | 3 | 2 | 315 | 0 | 6 | 2 | 2 |
| 08-Jan-26 | 1 | 13:00 | 16:00 | 1 | 3 | 2 | 90 | 2 | 6 | 2 | 2 |
| 08-Jan-26 | 1 | 13:00 | 16:00 | 2 | 3 | 1 | 90 | 0 | 6 | 2 | 2 |
| 08-Jan-26 | 1 | 13:00 | 16:00 | 3 | 3 | 1 | 180 | 0 | 6 | 2 | 2 |
| 08-Jan-26 | 1 | 09:30 | 12:30 | 1 | 3 | 2 | 180 | 0 | 5 | 2 | 2 |
| 08-Jan-26 | 1 | 09:30 | 12:30 | 2 | 3 | 2 | 90 | 0 | 5 | 2 | 2 |
| 08-Jan-26 | 1 | 09:30 | 12:30 | 3 | 3 | 2 | 90 | 2 | 5 | 2 | 2 |
| 21-Jan-26 | 3 | 13:00 | 16:00 | 1 | 3 | 4 | 90 | 0 | 7 | 2 | 2 |
| 21-Jan-26 | 3 | 13:00 | 16:00 | 2 | 3 | 4 | 135 | 0 | 7 | 2 | 2 |
| 21-Jan-26 | 3 | 13:00 | 16:00 | 3 | 3 | 4 | 135 | 0 | 6 | 2 | 2 |
| 21-Jan-26 | 3 | 09:30 | 12:30 | 1 | 3 | 5 | 135 | 0 | 5 | 2 | 2 |
| 21-Jan-26 | 3 | 09:30 | 12:30 | 2 | 3 | 5 | 90 | 0 | 7 | 2 | 2 |
| 21-Jan-26 | 3 | 09:30 | 12:30 | 3 | 3 | 5 | 90 | 2 | 7 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 22-Jan-26 | 2 | 08:30 | 11:30 | 1 | 3 | 4 | 90 | 4 | 8 | 1 | 1 |
| 22-Jan-26 | 2 | 08:30 | 11:30 | 2 | 3 | 5 | 90 | 4 | 8 | 1 | 2 |
| 22-Jan-26 | 2 | 08:30 | 11:30 | 3 | 3 | 5 | 90 | 3 | 8 | 2 | 2 |
| 09-Feb-26 | 2 | 14:10 | 17:10 | 1 | 3 | 4 | 90 | 3 | 8 | 1 | 2 |
| 09-Feb-26 | 2 | 14:10 | 17:10 | 2 | 3 | 4 | 90 | 2 | 8 | 1 | 2 |
| 09-Feb-26 | 2 | 14:10 | 17:10 | 3 | 3 | 4 | 90 | 3 | 8 | 1 | 2 |
| 10-Feb-26 | 1 | 09:30 | 12:30 | 1 | 3 | 4 | 90 | 4 | 8 | 2 | 2 |
| 10-Feb-26 | 1 | 09:30 | 12:30 | 2 | 3 | 4 | 90 | 4 | 8 | 2 | 2 |
| 10-Feb-26 | 1 | 09:30 | 12:30 | 3 | 3 | 4 | 90 | 3 | 8 | 2 | 2 |
| 10-Feb-26 | 1 | 13:00 | 16:00 | 1 | 3 | 4 | 90 | 0 | 8 | 2 | 2 |
| 10-Feb-26 | 1 | 13:00 | 16:00 | 2 | 3 | 4 | 90 | 3 | 8 | 2 | 2 |
| 10-Feb-26 | 1 | 13:00 | 16:00 | 3 | 3 | 4 | 90 | 3 | 8 | 2 | 2 |
| 23-Feb-26 | 2 | 13:45 | 16:45 | 1 | 3 | 4 | 270 | 0 | 7 | 2 | 2 |
| 23-Feb-26 | 2 | 13:45 | 16:45 | 2 | 3 | 4 | 270 | 0 | 7 | 2 | 2 |
| 23-Feb-26 | 2 | 13:45 | 16:45 | 3 | 3 | 2 | 225 | 2 | 7 | 2 | 2 |
| 24-Feb-26 | 3 | 09:40 | 12:40 | 1 | 3 | 4 | 180 | 0 | 8 | 2 | 2 |
| 24-Feb-26 | 3 | 09:40 | 12:40 | 2 | 3 | 4 | 180 | 0 | 8 | 2 | 2 |
| 24-Feb-26 | 3 | 09:40 | 12:40 | 3 | 3 | 5 | 135 | 0 | 8 | 2 | 2 |
| 25-Feb-26 | 3 | 08:20 | 11:20 | 1 | 3 | 3 | 180 | 4 | 8 | 1 | 2 |
| 25-Feb-26 | 3 | 08:20 | 11:20 | 2 | 3 | 3 | 180 | 4 | 8 | 1 | 1 |
| 25-Feb-26 | 3 | 08:20 | 11:20 | 3 | 3 | 3 | 180 | 3 | 8 | 1 | 2 |
| 09-Mar-26 | 2 | 14:10 | 17:10 | 1 | 3 | 2 | 180 | 2 | 8 | 2 | 2 |
| 09-Mar-26 | 2 | 14:10 | 17:10 | 2 | 3 | 2 | 225 | 3 | 8 | 2 | 2 |
| 09-Mar-26 | 2 | 14:10 | 17:10 | 3 | 3 | 2 | 225 | 2 | 7 | 2 | 2 |
| 10-Mar-26 | 1 | 08:45 | 11:45 | 1 | 3 | 4 | 180 | 0 | 8 | 2 | 2 |
| 10-Mar-26 | 1 | 08:45 | 11:45 | 2 | 3 | 4 | 225 | 0 | 7 | 2 | 2 |
| 10-Mar-26 | 1 | 08:45 | 11:45 | 3 | 3 | 4 | 180 | 0 | 7 | 2 | 2 |
| 10-Mar-26 | 1 | 12:15 | 15:15 | 1 | 3 | 5 | 180 | 2 | 7 | 2 | 2 |
| 10-Mar-26 | 1 | 12:15 | 15:15 | 2 | 3 | 5 | 180 | 0 | 7 | 2 | 2 |
| 10-Mar-26 | 1 | 12:15 | 15:15 | 3 | 3 | 5 | 180 | 3 | 8 | 2 | 2 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 24-Mar-26 | 3 | 08:50 | 11:50 | 1 | 3 | 3 | 270 | 0 | 7 | 2 | 2 |
| 24-Mar-26 | 3 | 08:50 | 11:50 | 2 | 3 | 3 | 270 | 0 | 8 | 2 | 2 |
| 24-Mar-26 | 3 | 08:50 | 11:50 | 3 | 3 | 3 | 270 | 3 | 8 | 2 | 2 |
| 24-Mar-26 | 3 | 12:20 | 15:20 | 1 | 3 | 3 | 225 | 2 | 8 | 2 | 2 |
| 24-Mar-26 | 3 | 12:20 | 15:20 | 2 | 3 | 4 | 225 | 2 | 8 | 2 | 2 |
| 24-Mar-26 | 3 | 12:20 | 15:20 | 3 | 3 | 4 | 270 | 3 | 8 | 1 | 2 |
| 25-Mar-26 | 2 | 10:00 | 13:00 | 1 | 3 | 5 | 315 | 3 | 6 | 2 | 2 |
| 25-Mar-26 | 2 | 10:00 | 13:00 | 2 | 3 | 5 | 315 | 3 | 6 | 2 | 2 |
| 25-Mar-26 | 2 | 10:00 | 13:00 | 3 | 3 | 4 | 270 | 0 | 5 | 2 | 2 |
| 07-Apr-26 | 2 | 15:30 | 18:30 | 1 | 3 | 5 | 135 | 0 | 7 | 2 | 2 |
| 07-Apr-26 | 2 | 15:30 | 18:30 | 2 | 3 | 4 | 135 | 2 | 7 | 2 | 2 |
| 07-Apr-26 | 2 | 15:30 | 18:30 | 3 | 3 | 4 | 135 | 2 | 8 | 2 | 2 |
| 08-Apr-26 | 1 | 08:50 | 11:50 | 1 | 3 | 2 | 270 | 0 | 8 | 2 | 2 |
| 08-Apr-26 | 1 | 08:50 | 11:50 | 2 | 3 | 1 | 270 | 0 | 8 | 2 | 2 |
| 08-Apr-26 | 1 | 08:50 | 11:50 | 3 | 3 | 1 | 270 | 0 | 8 | 2 | 2 |
| 08-Apr-26 | 1 | 12:20 | 15:20 | 1 | 3 | 2 | 315 | 0 | 7 | 2 | 2 |
| 08-Apr-26 | 1 | 12:20 | 15:20 | 2 | 3 | 2 | 90 | 0 | 5 | 2 | 2 |
| 08-Apr-26 | 1 | 12:20 | 15:20 | 3 | 3 | 3 | 135 | 0 | 7 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 1 | 3 | 4 | 90 | 0 | 1 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 2 | 3 | 4 | 90 | 0 | 1 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 3 | 3 | 4 | 90 | 0 | 1 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 1 | 3 | 4 | 90 | 0 | 1 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 2 | 3 | 4 | 90 | 0 | 3 | 2 | 2 |
| 22-Apr-26 | 3 | 10:30 | 13:30 | 3 | 3 | 4 | 90 | 0 | 3 | 2 | 2 |
| 23-Apr-26 | 2 | 09:10 | 12:10 | 1 | 3 | 4 | 90 | 0 | 4 | 2 | 2 |
| 23-Apr-26 | 2 | 09:10 | 12:10 | 2 | 3 | 4 | 90 | 0 | 5 | 2 | 2 |
| 23-Apr-26 | 2 | 09:10 | 12:10 | 3 | 3 | 4 | 90 | 0 | 5 | 2 | 2 |
| 06-May-26 | 2 | 12:45 | 15:45 | 1 | 3 | 4 | 90 | 0 | 7 | 1 | 2 |
| 06-May-26 | 2 | 12:45 | 15:45 | 2 | 3 | 4 | 90 | 0 | 8 | 1 | 1 |
| 06-May-26 | 2 | 12:45 | 15:45 | 3 | 3 | 4 | 90 | 0 | 8 | 1 | 1 |

| Date | VP | Start Time | End Time | Survey Hour | Duration (hours) | Wind Speed | Wind Direction | Rain | Cloud Cover | Cloud Height | Visibility |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 06-May-26 | 2 | 09:15 | 12:15 | 1 | 3 | 4 | 90 | 0 | 7 | 1 | 2 |
| 06-May-26 | 2 | 09:15 | 12:15 | 2 | 3 | 4 | 90 | 0 | 7 | 1 | 2 |
| 06-May-26 | 2 | 09:15 | 12:15 | 3 | 3 | 3 | 90 | 0 | 7 | 1 | 2 |
| 07-May-26 | 3 | 10:15 | 13:15 | 1 | 3 | 4 | 135 | 0 | 4 | 1 | 2 |
| 07-May-26 | 3 | 13:15 | 10:15 | 2 | 3 | 4 | 135 | 0 | 4 | 1 | 2 |
| 07-May-26 | 3 | 13:15 | 10:15 | 3 | 3 | 5 | 135 | 0 | 5 | 1 | 2 |
| 07-May-26 | 3 | 13:30 | 16:30 | 1 | 3 | 5 | 135 | 0 | 6 | 1 | 2 |
| 07-May-26 | 3 | 13:30 | 16:30 | 2 | 3 | 4 | 135 | 0 | 7 | 1 | 2 |
| 07-May-26 | 3 | 13:30 | 16:30 | 3 | 3 | 4 | 135 | 0 | 7 | 1 | 2 |
| 05-May-26 | 1 | 09:02 | 12:02 | 1 | 3 | 1 | 0 | 0 | 6 | 1 | 2 |
| 05-May-26 | 1 | 09:02 | 12:02 | 2 | 3 | 2 | 315 | 0 | 3 | 2 | 2 |
| 05-May-26 | 1 | 09:02 | 12:02 | 3 | 3 | 1 | 315 | 0 | 1 | 2 | 2 |
| 05-May-26 | 1 | 12:30 | 15:30 | 1 | 3 | 1 | 315 | 0 | 2 | 2 | 2 |
| 05-May-26 | 1 | 12:30 | 15:30 | 2 | 3 | 3 | 270 | 0 | 2 | 2 | 2 |
| 05-May-26 | 1 | 12:30 | 15:30 | 3 | 3 | 2 | 270 | 0 | 2 | 2 | 2 |

# Appendix C Roosting Goose Survey Details

**Table C.5-3: Roosting Goose Survey Details (2025-26)**

| Visit No. | Dawn/ Dusk Survey | Survey Date | Survey Start Time | Survey End Time |
|---|---|---|---|---|
| 1 | Dawn | 17/10/2025 | 06:28 | 07:28 |
| 2 | Dusk | 27/10/2025 | 15:55 | 17:33 |
| 3 | Dawn | 12/11/2025 | 06:20 | 08:40 |
| 4 | Dusk | 25/11/2025 | 15:00 | 17:45 |
| 5 | Dawn | 11/12/2025 | 07:15 | 09:45 |
| 6 | Dusk | 21/12/2025 | 14:45 | 17:30 |
| 7 | Dawn | 09/01/2026 | 07:10 | 09:20 |
| 8 | Dusk | 20/01/2026 | 15:30 | 17:45 |
| 9 | Dawn | 11/02/2026 | 06:30 | 08:45 |
| 10 | Dusk | 24/02/2026 | 16:40 | 19:15 |
| 11 | Dawn | 11/03/2026 | 05:15 | 08:20 |
| 12 | Dusk | 23/03/2026 | 17:10 | 19:45 |
| 13 | Dawn | 09/04/2026 | 05:00 | 08:30 |
| 14 | Dusk | 21/04/2026 | 19:20 | 22:20 |
| 15 | Dawn | 08/05/2026 | 05:00 | 07:00 |

**Table D.5-4: Details of Target Species Flights (Excluding Hen Harrier) Recorded during the 2025-26 VP Surveys for the Proposed Varied Development**

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 28/04/2025 | 1 | Herring gull | 5 | 14:54 | 0 | 0 | 0 | 120 | 0 | 0 | 120 |
| 28/04/2025 | 1 | Herring gull | 10 | 10:13 | 0 | 0 | 0 | 0 | 75 | 105 | 180 |
| 28/04/2025 | 1 | Oystercatcher | 2 | 11:45 | 60 | 0 | 0 | 0 | 0 | 0 | 60 |
| 28/04/2025 | 2 | Canada goose | 3 | 13:12 | 0 | 0 | 0 | 240 | 0 | 0 | 240 |
| 28/04/2025 | 2 | Canada goose | 2 | 14:44 | 0 | 0 | 120 | 60 | 0 | 0 | 180 |
| 28/04/2025 | 2 | Canada goose | 5 | 09:52 | 0 | 0 | 240 | 0 | 0 | 0 | 240 |
| 28/04/2025 | 2 | Lesser black-backed gull | 1 | 09:52 | 0 | 0 | 180 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 1 | 14:51 | 30 | 150 | 0 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 3 | 11:27 | 105 | 135 | 0 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common gull | 4 | 11:03 | 75 | 60 | 45 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 1 | 11:02 | 30 | 15 | 15 | 0 | 0 | 0 | 60 |
| 01/05/2025 | 3 | Common sandpiper | 1 | 11:00 | 120 | 0 | 0 | 0 | 0 | 0 | 120 |
| 01/05/2025 | 3 | Common gull | 3 | 10:52 | 30 | 90 | 60 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 2 | 09:40 | 45 | 240 | 135 | 0 | 0 | 0 | 420 |
| 01/05/2025 | 3 | Common gull | 1 | 09:37 | 225 | 135 | 0 | 0 | 0 | 0 | 360 |
| 01/05/2025 | 3 | Common gull | 2 | 09:29 | 360 | 0 | 0 | 0 | 0 | 0 | 360 |
| 01/05/2025 | 3 | Common gull | 4 | 09:23 | 300 | 0 | 0 | 0 | 0 | 0 | 300 |
| 01/05/2025 | 3 | Common sandpiper | 1 | 09:06 | 120 | 0 | 0 | 0 | 0 | 0 | 120 |
| 01/05/2025 | 3 | Canada goose | 2 | 09:04 | 255 | 105 | 0 | 0 | 0 | 0 | 360 |
| 01/05/2025 | 3 | Common gull | 2 | 11:52 | 315 | 45 | 0 | 0 | 0 | 0 | 360 |
| 01/05/2025 | 3 | Canada goose | 6 | 14:57 | 90 | 105 | 45 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common sandpiper | 1 | 11:30 | 60 | 0 | 0 | 0 | 0 | 0 | 60 |
| 01/05/2025 | 3 | Common gull | 1 | 14:48 | 15 | 15 | 30 | 0 | 0 | 0 | 60 |
| 01/05/2025 | 3 | Lesser black-backed gull | 1 | 14:29 | 0 | 30 | 150 | 0 | 0 | 0 | 180 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 01/05/2025 | 3 | Common gull | 2 | 14:20 | 45 | 135 | 0 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 5 | 14:16 | 45 | 60 | 135 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common gull | 1 | 14:16 | 30 | 210 | 0 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common gull | 1 | 14:09 | 60 | 45 | 15 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common gull | 1 | 14:07 | 45 | 90 | 45 | 0 | 0 | 0 | 120 |
| 01/05/2025 | 3 | Common gull | 2 | 13:33 | 45 | 165 | 30 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 2 | 13:08 | 75 | 45 | 60 | 0 | 0 | 0 | 240 |
| 01/05/2025 | 3 | Common gull | 1 | 12:43 | 225 | 135 | 0 | 0 | 0 | 0 | 180 |
| 01/05/2025 | 3 | Common gull | 2 | 12:29 | 15 | 105 | 0 | 0 | 0 | 0 | 360 |
| 01/05/2025 | 3 | Common gull | 2 | 12:21 | 30 | 45 | 45 | 0 | 0 | 0 | 120 |
| 01/05/2025 | 3 | Common gull | 2 | 9:00 | 195 | 105 | 0 | 0 | 0 | 0 | 120 |
| 01/05/2025 | 3 | Canada goose | 2 | 11:09 | 105 | 75 | 60 | 0 | 0 | 0 | 300 |
| 01/05/2025 | 3 | Canada goose | 10 | 15:52 | 0 | 45 | 240 | 195 | 0 | 0 | 240 |
| 27/05/2025 | 2 | Common gull | 2 | 19:56 | 195 | 45 | 0 | 0 | 0 | 0 | 120 |
| 28/05/2025 | 3 | Canada goose | 15 | 14:50 | 300 | 0 | 0 | 0 | 0 | 0 | 120 |
| 28/05/2025 | 3 | Common gull | 4 | 14:59 | 105 | 135 | 0 | 0 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Common gull | 6 | 13:11 | 75 | 105 | 0 | 0 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Common gull | 3 | 13:20 | 150 | 180 | 30 | 0 | 0 | 0 | 180 |
| 28/05/2025 | 3 | Common gull | 2 | 13:47 | 90 | 30 | 0 | 0 | 0 | 0 | 120 |
| 28/05/2025 | 3 | Common gull | 1 | 13:52 | 30 | 30 | 120 | 60 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Golden eagle | 2 | 13:58 | 45 | 255 | 0 | 0 | 0 | 0 | 300 |
| 28/05/2025 | 3 | Common gull | 3 | 14:06 | 30 | 150 | 0 | 0 | 0 | 0 | 180 |
| 28/05/2025 | 3 | Common gull | 2 | 14:31 | 30 | 210 | 0 | 0 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Common gull | 5 | 14:38 | 15 | 60 | 165 | 0 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Golden eagle | 2 | 13:03 | 210 | 30 | 0 | 0 | 0 | 0 | 240 |
| 28/05/2025 | 3 | Common gull | 1 | 7:12 | 0 | 0 | 270 | 30 | 0 | 0 | 300 |
| 29/05/2025 | 2 | Common gull | 4 | 11:12 | 120 | 60 | 0 | 0 | 0 | 0 | 180 |
| 29/05/2025 | 3 | Common gull | 5 | 10:49 | 45 | 135 | 0 | 0 | 0 | 0 | 180 |
| 29/05/2025 | 3 | Canada goose | 2 | 10:39 | 225 | 75 | 0 | 0 | 0 | 0 | 300 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 29/05/2025 | 3 | Common gull | 1 | 11:35 | 45 | 105 | 150 | 0 | 0 | 0 | 300 |
| 29/05/2025 | 3 | Common gull | 2 | 11:29 | 120 | 0 | 0 | 0 | 0 | 0 | 120 |
| 29/05/2025 | 3 | Canada goose | 2 | 10:20 | 165 | 75 | 0 | 0 | 0 | 0 | 240 |
| 29/05/2025 | 3 | Common gull | 3 | 11:24 | 360 | 0 | 0 | 0 | 0 | 0 | 360 |
| 29/05/2025 | 3 | Common gull | 1 | 9:31 | 0 | 0 | 240 | 0 | 0 | 0 | 240 |
| 24/06/2025 | 2 | Common gull | 1 | 9:39 | 0 | 90 | 90 | 0 | 0 | 0 | 180 |
| 24/06/2025 | 2 | Herring gull | 1 | 14:14 | 0 | 0 | 0 | 360 | 0 | 0 | 360 |
| 24/06/2025 | 2 | Great black-backed gull | 1 | 13:57 | 45 | 270 | 0 | 0 | 0 | 0 | 315 |
| 25/06/2025 | 3 | Common gull | 12 | 13:38 | 480 | 0 | 0 | 0 | 0 | 0 | 480 |
| 25/06/2025 | 3 | Snipe | 1 | 14:42 | 60 | 0 | 0 | 0 | 0 | 0 | 60 |
| 25/06/2025 | 3 | Common gull | 3 | 14:24 | 30 | 45 | 45 | 0 | 0 | 0 | 120 |
| 25/06/2025 | 3 | Common gull | 4 | 13:20 | 75 | 165 | 0 | 0 | 0 | 0 | 240 |
| 25/06/2025 | 3 | Common gull | 1 | 15:18 | 150 | 135 | 15 | 0 | 0 | 0 | 300 |
| 25/06/2025 | 3 | Common gull | 2 | 15:24 | 30 | 150 | 0 | 0 | 0 | 0 | 180 |
| 25/06/2025 | 1 | Herring gull | 1 | 17:11 | 0 | 75 | 285 | 0 | 0 | 0 | 360 |
| 25/06/2025 | 1 | Common gull | 1 | 17:49 | 0 | 240 | 60 | 0 | 0 | 0 | 300 |
| 25/06/2025 | 1 | Herring gull | 1 | 19:13 | 0 | 0 | 105 | 75 | 0 | 0 | 180 |
| 25/06/2025 | 3 | Common gull | 4 | 15:05 | 300 | 0 | 0 | 0 | 0 | 0 | 300 |
| 25/06/2025 | 3 | Common gull | 5 | 13:09 | 180 | 180 | 0 | 0 | 0 | 0 | 360 |
| 25/06/2025 | 3 | Common gull | 11 | 11:05 | 360 | 0 | 0 | 0 | 0 | 0 | 360 |
| 25/06/2025 | 3 | Common gull | 1 | 15:10 | 30 | 15 | 15 | 0 | 0 | 0 | 60 |
| 25/06/2025 | 3 | Common gull | 6 | 9:45 | 240 | 0 | 0 | 0 | 0 | 0 | 240 |
| 25/06/2025 | 3 | Common gull | 7 | 12:53 | 120 | 330 | 30 | 0 | 0 | 0 | 480 |
| 25/06/2025 | 3 | Common gull | 2 | 9:28 | 45 | 105 | 150 | 0 | 0 | 0 | 300 |
| 25/06/2025 | 3 | Common gull | 1 | 10:01 | 30 | 135 | 15 | 0 | 0 | 0 | 180 |
| 25/06/2025 | 3 | Common gull | 5 | 10:29 | 240 | 0 | 0 | 0 | 0 | 0 | 240 |
| 25/06/2025 | 3 | Common gull | 4 | 10:47 | 180 | 60 | 0 | 0 | 0 | 0 | 240 |
| 25/06/2025 | 3 | Common gull | 6 | 11:30 | 180 | 0 | 0 | 0 | 0 | 0 | 180 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 25/06/2025 | 3 | Common gull | 2 | 11:47 | 60 | 120 | 120 | 0 | 0 | 0 | 300 |
| 25/06/2025 | 3 | Common gull | 6 | 11:57 | 105 | 300 | 0 | 0 | 0 | 0 | 405 |
| 25/06/2025 | 3 | Common gull | 3 | 12:33 | 180 | 0 | 0 | 0 | 0 | 0 | 180 |
| 25/06/2025 | 3 | Common gull | 1 | 12:51 | 15 | 0 | 45 | 0 | 0 | 0 | 60 |
| 25/06/2025 | 3 | Common gull | 5 | 9:22 | 0 | 45 | 120 | 75 | 0 | 0 | 240 |
| 26/06/2025 | 1 | Herring gull | 2 | 10:58 | 0 | 0 | 0 | 360 | 0 | 0 | 360 |
| 26/06/2025 | 1 | Common gull | 2 | 10:00 | 0 | 0 | 240 | 0 | 0 | 0 | 240 |
| 26/06/2025 | 1 | Common gull | 2 | 9:13 | 0 | 0 | 300 | 0 | 0 | 0 | 300 |
| 23/07/2025 | 1 | Herring gull | 2 | 13:01 | 0 | 0 | 0 | 0 | 0 | 45 | 45 |
| 23/07/2025 | 1 | Herring gull | 3 | 10:07 | 0 | 0 | 0 | 0 | 90 | 0 | 90 |
| 23/07/2025 | 1 | Herring gull | 1 | 10:17 | 0 | 30 | 30 | 0 | 0 | 0 | 60 |
| 23/07/2025 | 1 | Canada goose | 3 | 12:51 | 0 | 0 | 0 | 0 | 45 | 60 | 105 |
| 23/07/2025 | 1 | Herring gull | 2 | 12:37 | 0 | 0 | 0 | 0 | 45 | 0 | 45 |
| 23/07/2025 | 1 | Herring gull | 1 | 9:42 | 0 | 0 | 0 | 30 | 0 | 0 | 30 |
| 23/07/2025 | 1 | Herring gull | 2 | 10:31 | 0 | 0 | 0 | 0 | 45 | 30 | 75 |
| 23/07/2025 | 2 | Herring gull | 1 | 14:15 | 0 | 0 | 0 | 225 | 75 | 0 | 300 |
| 24/07/2025 | 3 | Greylag goose | 7 | 13:18 | 60 | 45 | 135 | 0 | 0 | 0 | 240 |
| 24/07/2025 | 3 | Greylag goose | 7 | 12:47 | 60 | 30 | 210 | 0 | 0 | 0 | 300 |
| 24/07/2025 | 3 | Herring gull | 1 | 14:44 | 0 | 0 | 120 | 120 | 0 | 0 | 240 |
| 24/07/2025 | 3 | White tailed eagle | 1 | 15:08 | 0 | 60 | 30 | 30 | 0 | 0 | 120 |
| 24/07/2025 | 3 | Golden eagle | 1 | 10:31 | 60 | 60 | 15 | 120 | 105 | 0 | 360 |
| 24/07/2025 | 3 | Greylag goose | 3 | 10:02 | 0 | 0 | 0 | 75 | 165 | 0 | 240 |
| 04/08/2025 | 2 | Lesser black-backed gull | 2 | 16:17 | 75 | 75 | 90 | 0 | 0 | 0 | 240 |
| 04/08/2025 | 1 | Herring gull | 1 | 16:26 | 0 | 45 | 15 | 60 | 0 | 0 | 120 |
| 04/08/2025 | 1 | Lesser black-backed gull | 1 | 16:18 | 0 | 0 | 120 | 0 | 0 | 0 | 120 |
| 05/08/2025 | 1 | Mallard | 1 | 7:06 | 0 | 0 | 0 | 120 | 0 | 0 | 120 |
| 06/08/2025 | 3 | Greylag goose | 5 | 11:29 | 0 | 60 | 180 | 0 | 0 | 0 | 240 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 06/08/2025 | 3 | Lesser black-backed gull | 1 | 11:39 | 0 | 120 | 150 | 30 | 0 | 0 | 300 |
| 06/08/2025 | 3 | Greylag goose | 2 | 14:33 | 0 | 60 | 180 | 0 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Mallard | 13 | 14:15 | 0 | 0 | 105 | 135 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Lesser black-backed gull | 1 | 13:51 | 30 | 180 | 30 | 0 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Golden eagle | 1 | 13:48 | 0 | 0 | 45 | 255 | 0 | 0 | 300 |
| 06/08/2025 | 3 | Greylag goose | 8 | 13:30 | 0 | 105 | 135 | 0 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Golden eagle | 1 | 13:28 | 0 | 105 | 90 | 165 | 0 | 0 | 360 |
| 06/08/2025 | 3 | Lesser black-backed gull | 2 | 12:47 | 30 | 90 | 60 | 0 | 0 | 0 | 180 |
| 06/08/2025 | 3 | Lesser black-backed gull | 1 | 10:41 | 0 | 135 | 195 | 30 | 0 | 0 | 360 |
| 06/08/2025 | 3 | Greylag goose | 2 | 10:06 | 0 | 0 | 180 | 0 | 0 | 0 | 180 |
| 06/08/2025 | 3 | Greylag goose | 63 | 9:58 | 0 | 0 | 135 | 105 | 0 | 0 | 240 |
| 06/08/2025 | 3 | White tailed eagle | 1 | 9:27 | 0 | 60 | 135 | 105 | 0 | 0 | 300 |
| 06/08/2025 | 3 | Greylag goose | 2 | 9:21 | 0 | 0 | 180 | 60 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Greylag goose | 25 | 9:17 | 0 | 60 | 180 | 0 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Greylag goose | 18 | 9:14 | 0 | 0 | 180 | 0 | 0 | 0 | 180 |
| 06/08/2025 | 3 | Greylag goose | 19 | 9:12 | 0 | 0 | 240 | 0 | 0 | 0 | 240 |
| 06/08/2025 | 3 | Greylag goose | 6 | 12:35 | 0 | 90 | 90 | 0 | 0 | 0 | 180 |
| 23/09/2025 | 3 | Canada goose | 3 | 6:50 | 30 | 90 | 30 | 0 | 0 | 0 | 150 |
| 23/09/2025 | 3 | Greylag goose | 1 | 8:48 | 0 | 0 | 0 | 240 | 0 | 0 | 240 |
| 23/09/2025 | 3 | Canada goose | 2 | 8:25 | 75 | 60 | 105 | 0 | 0 | 0 | 240 |
| 23/09/2025 | 3 | Greylag goose | 33 | 8:16 | 0 | 0 | 240 | 0 | 0 | 0 | 240 |
| 23/09/2025 | 3 | Greylag goose | 36 | 7:58 | 0 | 0 | 360 | 0 | 0 | 0 | 360 |
| 23/09/2025 | 3 | Canada goose | 4 | 7:21 | 60 | 60 | 0 | 0 | 0 | 0 | 120 |
| 23/09/2025 | 3 | Canada goose | 10 | 7:00 | 0 | 270 | 90 | 0 | 0 | 0 | 360 |
| 23/09/2025 | 1 | Greylag goose | 2 | 17:30 | 0 | 0 | 90 | 150 | 0 | 0 | 240 |
| 23/09/2025 | 3 | Snipe | 1 | 7:06 | 75 | 105 | 0 | 0 | 0 | 0 | 180 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 15/10/2025 | 3 | Greylag goose | 2 | 8:46 | 60 | 75 | 45 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Greenland white fronted goose | 175 | 7:21 | 135 | 105 | 0 | 0 | 0 | 0 | 240 |
| 15/10/2025 | 3 | Greenland white fronted goose | 175 | 7:37 | 15 | 180 | 105 | 0 | 0 | 0 | 300 |
| 15/10/2025 | 3 | Greylag goose | 1 | 8:17 | 60 | 60 | 0 | 0 | 0 | 0 | 120 |
| 15/10/2025 | 3 | Canada goose | 17 | 8:46 | 75 | 45 | 0 | 0 | 0 | 0 | 120 |
| 15/10/2025 | 3 | Canada goose | 5 | 18:19 | 45 | 225 | 30 | 0 | 0 | 0 | 300 |
| 15/10/2025 | 3 | Greylag goose | 1 | 8:09 | 0 | 105 | 75 | 60 | 0 | 0 | 240 |
| 15/10/2025 | 3 | Greylag goose | 15 | 19:17 | 0 | 150 | 90 | 0 | 0 | 0 | 240 |
| 15/10/2025 | 3 | Greylag goose | 4 | 18:58 | 240 | 0 | 0 | 0 | 0 | 0 | 240 |
| 15/10/2025 | 3 | Greenland white fronted goose | 47 | 18:50 | 75 | 150 | 75 | 0 | 0 | 0 | 300 |
| 15/10/2025 | 3 | Greenland white fronted goose | 40 | 18:46 | 90 | 75 | 15 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Greylag goose | 1 | 9:06 | 0 | 0 | 0 | 180 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Greenland white fronted goose | 28 | 18:44 | 75 | 150 | 75 | 0 | 0 | 0 | 300 |
| 15/10/2025 | 3 | Merlin | 1 | 17:16 | 180 | 0 | 0 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Snipe | 11 | 16:29 | 90 | 90 | 0 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Canada goose | 25 | 9:10 | 0 | 0 | 0 | 180 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Greenland white fronted goose | 110 | 18:46 | 60 | 75 | 45 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Canada goose | 4 | 9:15 | 0 | 0 | 0 | 180 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Snipe | 2 | 16:59 | 45 | 135 | 0 | 0 | 0 | 0 | 180 |
| 15/10/2025 | 3 | Snipe | 1 | 17:03 | 0 | 0 | 0 | 120 | 0 | 0 | 120 |
| 16/10/2025 | 2 | Greylag goose | 2 | 10:46 | 0 | 0 | 150 | 150 | 0 | 0 | 300 |
| 16/10/2025 | 3 | Greenland white fronted goose | 2 | 14:06 | 75 | 90 | 120 | 150 | 45 | 0 | 480 |
| 16/10/2025 | 3 | Greenland white fronted goose | 2 | 13:49 | 0 | 0 | 0 | 0 | 180 | 0 | 180 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 16/10/2025 | 3 | Greenland white fronted goose | 2 | 14:14 | 45 | 75 | 180 | 0 | 0 | 0 | 300 |
| 16/10/2025 | 3 | Teal | 4 | 12:37 | 120 | 0 | 0 | 0 | 0 | 0 | 120 |
| 17/10/2025 | 2 | Greenland white fronted goose | 3 | 9:04 | 0 | 0 | 150 | 90 | 0 | 0 | 240 |
| 17/10/2025 | 2 | Greenland white fronted goose | 25 | 9:02 | 0 | 0 | 180 | 60 | 0 | 0 | 240 |
| 17/10/2025 | 2 | Greenland white fronted goose | 2 | 8:22 | 0 | 0 | 0 | 240 | 0 | 0 | 240 |
| 11/11/2025 | 1 | Herring gull | 5 | 11:17 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 11/11/2025 | 1 | Herring gull | 3 | 11:32 | 0 | 15 | 15 | 0 | 0 | 0 | 30 |
| 11/11/2025 | 1 | Herring gull | 20 | 9:37 | 0 | 15 | 45 | 0 | 0 | 0 | 60 |
| 11/11/2025 | 1 | Herring gull | 1 | 9:06 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 11/11/2025 | 1 | Common gull | 1 | 11:34 | 0 | 15 | 15 | 0 | 0 | 0 | 30 |
| 11/11/2025 | 1 | Herring gull | 6 | 11:05 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 26/11/2025 | 3 | Tufted duck | 1 | 11:52 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 26/11/2025 | 3 | Tufted duck | 1 | 14:44 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 26/11/2025 | 3 | Goldeneye | 6 | 14:47 | 15 | 15 | 0 | 0 | 0 | 0 | 30 |
| 26/11/2025 | 3 | Goldeneye | 1 | 14:50 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 27/11/2025 | 2 | Great black-backed gull | 1 | 10:28 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 10/12/2025 | 1 | Herring gull | 10 | 9:12 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 10/12/2025 | 1 | Herring gull | 15 | 10:20 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 10/12/2025 | 1 | Great black-backed gull | 1 | 9:12 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 10/12/2025 | 1 | White tailed eagle | 1 | 9:34 | 0 | 0 | 15 | 15 | 0 | 0 | 30 |
| 22/12/2025 | 3 | Greylag goose | 8 | 14:14 | 0 | 0 | 0 | 30 | 30 | 0 | 60 |
| 22/12/2025 | 3 | Greylag goose | 10 | 14:52 | 0 | 0 | 0 | 0 | 0 | 90 | 90 |
| 22/12/2025 | 3 | Greylag goose | 5 | 14:31 | 0 | 0 | 0 | 0 | 0 | 135 | 135 |
| 22/12/2025 | 3 | Greylag goose | 5 | 14:08 | 0 | 0 | 0 | 15 | 30 | 0 | 45 |
| 22/12/2025 | 3 | Greylag goose | 61 | 14:10 | 0 | 0 | 0 | 0 | 0 | 15 | 15 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 07/01/2026 | 2 | Common gull | 4 | 15:11 | 30 | 0 | 15 | 0 | 0 | 0 | 45 |
| 08/01/2026 | 1 | Common gull | 60 | 10:50 | 15 | 15 | 0 | 0 | 0 | 0 | 30 |
| 08/01/2026 | 1 | Common gull | 90 | 11:22 | 60 | 15 | 0 | 0 | 0 | 0 | 75 |
| 08/01/2026 | 1 | Common gull | 60 | 10:58 | 30 | 0 | 15 | 0 | 0 | 0 | 45 |
| 08/01/2026 | 1 | Common gull | 1 | 10:59 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 21/01/2026 | 3 | Mallard | 3 | 15:23 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 22/01/2026 | 2 | Herring gull | 16 | 11:14 | 30 | 0 | 15 | 0 | 0 | 0 | 45 |
| 09/02/2026 | 2 | Herring gull | 1 | 14:13 | 15 | 15 | 0 | 0 | 0 | 0 | 30 |
| 10/02/2026 | 1 | Herring gull | 5 | 10:15 | 0 | 15 | 30 | 15 | 0 | 0 | 60 |
| 10/02/2026 | 1 | Herring gull | 40 | 11:16 | 0 | 0 | 15 | 45 | 30 | 0 | 90 |
| 10/02/2026 | 1 | Common gull | 60 | 11:49 | 0 | 0 | 45 | 60 | 0 | 0 | 105 |
| 10/02/2026 | 1 | Herring gull | 8 | 10:08 | 0 | 15 | 15 | 0 | 0 | 0 | 30 |
| 23/02/2026 | 2 | Canada goose | 14 | 16:39 | 0 | 15 | 15 | 0 | 0 | 0 | 30 |
| 24/02/2026 | 3 | Common gull | 2 | 10:01 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 24/02/2026 | 3 | Common gull | 1 | 10:08 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 24/02/2026 | 3 | Goldeneye | 1 | 10:32 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 24/02/2026 | 3 | Ring necked duck | 5 | 11:14 | 15 | 15 | 30 | 0 | 0 | 0 | 60 |
| 24/02/2026 | 3 | Common gull | 2 | 11:18 | 15 | 30 | 30 | 0 | 0 | 0 | 75 |
| 25/02/2026 | 3 | Common gull | 4 | 8:48 | 15 | 30 | 0 | 0 | 0 | 0 | 45 |
| 25/02/2026 | 3 | Tufted duck | 2 | 10:42 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 25/02/2026 | 3 | Common gull | 1 | 11:08 | 30 | 15 | 0 | 0 | 0 | 0 | 45 |
| 25/02/2026 | 3 | Wigeon | 3 | 11:15 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 25/02/2026 | 3 | Greenland white-fronted goose | 4 | 11:18 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 09/03/2026 | 2 | Common gull | 2 | 14:32 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 09/03/2026 | 2 | Greater black-backed gull | 1 | 14:47 | 0 | 0 | 45 | 0 | 0 | 0 | 45 |
| 09/03/2026 | 2 | Common gull | 2 | 15:10 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 10/03/2026 | 1 | Herring gull | 3 | 14:02 | 0 | 0 | 60 | 15 | 0 | 0 | 75 |
| 10/03/2026 | 1 | Herring gull | 11 | 09:32 | 0 | 0 | 0 | 15 | 15 | 0 | 30 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 10/03/2026 | 1 | Lesser black-backed gull | 1 | 09:32 | 0 | 0 | 0 | 15 | 15 | 0 | 30 |
| 10/03/2026 | 1 | Herring gull | 20 | 11:04 | 0 | 0 | 0 | 30 | 0 | 0 | 30 |
| 10/03/2026 | 1 | Lesser black-backed gull | 1 | 14:02 | 0 | 0 | 60 | 15 | 0 | 0 | 75 |
| 10/03/2026 | 1 | Herring gull | 9 | 14:52 | 0 | 15 | 30 | 0 | 0 | 0 | 45 |
| 10/03/2026 | 1 | Herring gull | 1 | 09:11 | 0 | 0 | 0 | 15 | 0 | 0 | 15 |
| 10/03/2026 | 1 | Greater black-backed gull | 2 | 10:05 | 0 | 0 | 0 | 15 | 30 | 0 | 45 |
| 24/03/2026 | 3 | Greater black-backed gull | 2 | 10:29 | 0 | 0 | 30 | 30 | 0 | 0 | 60 |
| 24/03/2026 | 3 | Common gull | 5 | 14:10 | 0 | 0 | 75 | 60 | 0 | 0 | 135 |
| 24/03/2026 | 3 | Common gull | 3 | 13:42 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 24/03/2026 | 3 | Common gull | 4 | 12:22 | 30 | 0 | 15 | 0 | 0 | 0 | 45 |
| 24/03/2026 | 3 | Common gull | 2 | 11:25 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 24/03/2026 | 3 | Common gull | 1 | 10:08 | 45 | 15 | 0 | 0 | 0 | 0 | 60 |
| 24/03/2026 | 3 | Common gull | 5 | 10:02 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 24/03/2026 | 3 | Common gull | 1 | 09:18 | 15 | 0 | 15 | 15 | 0 | 0 | 45 |
| 24/03/2026 | 3 | Common gull | 2 | 09:15 | 30 | 30 | 0 | 0 | 0 | 0 | 60 |
| 24/03/2026 | 3 | Mallard | 2 | 09:11 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 24/03/2026 | 3 | Common gull | 4 | 10:42 | 60 | 0 | 0 | 0 | 0 | 0 | 60 |
| 07/04/2026 | 2 | Lesser black-backed gull | 3 | 15:37 | 0 | 15 | 45 | 0 | 30 | 0 | 90 |
| 07/04/2026 | 2 | Herring gull | 46 | 15:37 | 0 | 15 | 45 | 0 | 30 | 0 | 90 |
| 07/04/2026 | 2 | Greylag goose | 4 | 18:28 | 0 | 0 | 60 | 0 | 0 | 0 | 60 |
| 08/04/2026 | 1 | Herring gull | 6 | 10:48 | 0 | 0 | 0 | 15 | 0 | 0 | 15 |
| 08/04/2026 | 1 | Shelduck | 2 | 11:04 | 0 | 15 | 15 | 0 | 0 | 0 | 30 |
| 08/04/2026 | 1 | Herring gull | 10 | 13:03 | 0 | 0 | 0 | 30 | 0 | 0 | 30 |
| 08/04/2026 | 1 | Greater black-backed gull | 2 | 10:26 | 0 | 0 | 0 | 30 | 0 | 0 | 30 |
| 08/04/2026 | 1 | Herring gull | 2 | 09:48 | 0 | 0 | 0 | 15 | 0 | 0 | 15 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 08/04/2026 | 1 | Shelduck | 4 | 09:32 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 08/04/2026 | 1 | Greylag goose | 2 | 10:31 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 08/04/2026 | 1 | Curlew | 8 | 14:30 | 0 | 0 | 15 | 15 | 0 | 0 | 30 |
| 22/04/2026 | 3 | Common gull | 3 | 16:24 | 30 | 30 | 30 | 0 | 0 | 0 | 90 |
| 22/04/2026 | 3 | Mallard | 2 | 15:12 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 22/04/2026 | 3 | Common gull | 4 | 15:45 | 45 | 0 | 0 | 0 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Greylag goose | 1 | 15:50 | 0 | 0 | 30 | 0 | 60 | 0 | 90 |
| 22/04/2026 | 3 | Common gull | 5 | 15:54 | 30 | 0 | 0 | 15 | 30 | 0 | 75 |
| 22/04/2026 | 3 | Common gull | 6 | 15:58 | 0 | 0 | 0 | 30 | 15 | 45 | 90 |
| 22/04/2026 | 3 | Common gull | 4 | 16:16 | 0 | 0 | 30 | 15 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 24 | 14:22 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 22/04/2026 | 3 | Common gull | 2 | 16:41 | 0 | 0 | 0 | 30 | 30 | 45 | 105 |
| 22/04/2026 | 3 | Common gull | 2 | 16:47 | 15 | 0 | 15 | 15 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 4 | 16:24 | 30 | 15 | 75 | 0 | 0 | 0 | 120 |
| 22/04/2026 | 3 | Common gull | 2 | 15:12 | 30 | 0 | 15 | 0 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Herring gull | 3 | 15:45 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 22/04/2026 | 3 | Common gull | 2 | 15:50 | 15 | 0 | 30 | 0 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 2 | 15:54 | 45 | 0 | 0 | 0 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 2 | 15:58 | 15 | 0 | 30 | 15 | 0 | 0 | 60 |
| 22/04/2026 | 3 | Common gull | 1 | 16:16 | 0 | 15 | 0 | 45 | 0 | 0 | 60 |
| 22/04/2026 | 3 | Common gull | 2 | 14:22 | 0 | 0 | 0 | 45 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Herring gull | 1 | 16:41 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 22/04/2026 | 3 | Common gull | 5 | 16:47 | 30 | 0 | 0 | 0 | 0 | 0 | 30 |
| 22/04/2026 | 3 | Common gull | 6 | 16:56 | 15 | 0 | 30 | 0 | 0 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 5 | 16:02 | 0 | 0 | 15 | 0 | 45 | 0 | 60 |
| 22/04/2026 | 3 | Common gull | 5 | 14:40 | 0 | 0 | 0 | 15 | 30 | 0 | 45 |
| 22/04/2026 | 3 | Common gull | 3 | 13:29 | 0 | 0 | 15 | 15 | 30 | 0 | 60 |
| 23/04/2026 | 2 | Common gull | 1 | 12:07 | 30 | 0 | 15 | 0 | 30 | 0 | 75 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 05/05/2026 | 1 | Greater black-backed gull | 2 | 10:27 | 0 | 75 | 0 | 0 | 0 | 0 | 75 |
| 05/05/2026 | 1 | Common gull | 2 | 09:45 | 15 | 0 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:31 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Greater black-backed gull | 1 | 13:17 | 0 | 30 | 0 | 0 | 0 | 0 | 30 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:17 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:18 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:20 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 4 | 13:29 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:40 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 13:50 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 14:07 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 6 | 14:15 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 1 | 14:53 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Herring gull | 4 | 15:14 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 05/05/2026 | 1 | Greater black-backed gull | 1 | 09:11 | 0 | 15 | 30 | 0 | 0 | 0 | 45 |
| 05/05/2026 | 1 | Herring gull | 1 | 14:34 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Common gull | 1 | 13:54 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Common gull | 1 | 11:00 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Common gull | 2 | 13:37 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 06/05/2026 | 2 | Common gull | 2 | 13:53 | 0 | 0 | 45 | 15 | 0 | 0 | 60 |
| 06/05/2026 | 2 | Common gull | 1 | 14:16 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Common gull | 5 | 15:02 | 0 | 45 | 150 | 0 | 0 | 0 | 195 |
| 06/05/2026 | 2 | Greater black-backed gull | 1 | 09:35 | 0 | 0 | 390 | 0 | 0 | 0 | 390 |
| 06/05/2026 | 2 | Common gull | 1 | 09:50 | 0 | 0 | 30 | 0 | 0 | 0 | 30 |
| 06/05/2026 | 2 | Common gull | 1 | 10:11 | 0 | 30 | 15 | 0 | 0 | 0 | 45 |

| Date | VP | Species | No. of Birds | Time First Observed | Height Band | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 (<20m) | 2 (20-40m) | 3 (40-100m) | 4 (100-150m) | 5 (150-250m) | 6 (>250m) | Flight Duration (s) |
| 06/05/2026 | 2 | Greater black-backed gull | 1 | 10:25 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Common gull | 4 | 14:58 | 0 | 0 | 15 | 0 | 0 | 0 | 15 |
| 06/05/2026 | 2 | Greater black-backed gull | 1 | 10:34 | 0 | 0 | 120 | 0 | 0 | 0 | 120 |
| 06/05/2026 | 2 | Common gull | 1 | 11:13 | 0 | 45 | 0 | 0 | 0 | 0 | 45 |
| 06/05/2026 | 2 | Common gull | 2 | 11:49 | 0 | 15 | 60 | 0 | 0 | 0 | 75 |
| 06/05/2026 | 2 | Common gull | 2 | 10:30 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| 07/05/2026 | 3 | Common gull | 1 | 15:10 | 0 | 15 | 75 | 0 | 0 | 0 | 90 |
| 07/05/2026 | 3 | Greater black-backed gull | 1 | 11:16 | 15 | 60 | 120 | 0 | 0 | 0 | 195 |
| 07/05/2026 | 3 | Common gull | 1 | 12:11 | 15 | 15 | 0 | 0 | 0 | 0 | 30 |
| 07/05/2026 | 3 | Golden Eagle | 1 | 13:47 | 15 | 15 | 30 | 0 | 0 | 0 | 60 |
| 07/05/2026 | 3 | Common gull | 5 | 16:00 | 15 | 75 | 45 | 0 | 0 | 0 | 135 |
| 07/05/2026 | 3 | Greater black-backed gull | 1 | 15:34 | 0 | 30 | 90 | 0 | 0 | 0 | 120 |
| 07/05/2026 | 3 | Greater black-backed gull | 1 | 15:19 | 15 | 15 | 90 | 0 | 0 | 0 | 120 |

## Appendix E Roosting Goose Surveys - Detailed Results

**Table E.5-5: Flights Recorded during Roosting Goose Surveys**

| Date | Species* | No. of Birds | Notes |
|---|---|---|---|
| 17/10/2025 | White-fronted goose | 191 | All on loch at start of survey then flew south-west |
| 27/10/2025 | White-fronted goose | 87 | Landed at 16:30 |
| 27/10/2025 | White-fronted goose | 170 | |
| 27/10/2025 | White-fronted goose | 19 | |
| 27/10/2025 | White-fronted goose | 12 | |
| 27/10/2025 | Greylag goose | 72 | |
| 25/11/2025 | White-fronted goose | 4 | |
| 25/11/2025 | Greylag goose | 1 | |
| 25/11/2025 | White-fronted goose | 10 | |
| 25/11/2025 | White-fronted goose | 23 | |
| 25/11/2025 | White-fronted goose | 250 | |
| 25/11/2025 | White-fronted goose | 630 | |
| 25/11/2025 | Greylag goose | 180 | |
| 25/11/2025 | Greylag goose | 200 | |
| 25/11/2025 | White-fronted goose | 630 | Up to 630 individuals |
| 11/12/2025 | White-fronted goose | 200 | |
| 11/12/2025 | White-fronted goose | 50 | |
| 11/12/2025 | White-tailed eagle | 1 | |
| 11/12/2025 | White-fronted goose | 150 | |
| 11/12/2025 | Greylag goose | 50 | |
| 11/12/2025 | White-fronted goose | 200 | |
| 11/12/2025 | White-fronted goose | 1 | |
| 11/12/2025 | White-fronted goose | 1 | |
| 11/12/2025 | Greylag goose | 15 | |
| 11/12/2025 | White-tailed eagle | 1 | Adult type over loch |
| 21/12/2025 | White-fronted goose | 5 | |
| 21/12/2025 | White-fronted goose | 250 | |
| 21/12/2025 | White-fronted goose | 450 | |
| 21/12/2025 | White-fronted goose | 200 | |
| 21/12/2025 | White-fronted goose | 350 | |
| 21/12/2025 | White-fronted goose | 68 | |
| 21/12/2025 | White-fronted goose | 400 | |
| 21/12/2025 | White-fronted goose | 33 | |
| 21/12/2025 | White-fronted goose | 1200 | |
| 09/01/2026 | Greylag goose | 70 | |
| 09/01/2026 | Greylag goose | 14 | |
| 09/01/2026 | Greylag goose | 10 | |
| 09/01/2026 | Greylag goose | 2 | |
| 09/01/2026 | White-fronted goose | 2000 | A few greylag geese also in the flock |

| Date | Species* | No. of Birds | Notes |
|---|---|---|---|
| 09/01/2026 | White-fronted goose | 500 | A few greylag geese also in the flock |
| 09/01/2026 | White-fronted goose | 56 | |
| 09/01/2026 | White-fronted goose | 400 | |
| 09/01/2026 | Greylag goose | 12 | |
| 20/01/2026 | Greylag goose | 6 | |
| 20/01/2026 | White-fronted goose | 100 | |
| 11/02/2026 | White-fronted goose | 250 | |
| 11/02/2026 | Greylag goose | 10 | |
| 11/02/2026 | White-fronted goose | 150 | |
| 11/02/2026 | Canada goose | 12 | |
| 11/02/2026 | Greylag goose | 1 | |
| 11/02/2026 | Greylag goose | 1 | |
| 24/02/2026 | White-fronted goose | 300 | |
| 24/02/2026 | White-fronted goose | 292 | |
| 24/02/2026 | Canada goose | 7 | |
| 24/02/2026 | White-fronted goose | 300 | |
| 24/02/2026 | White-fronted goose | 250 | |
| 24/02/2026 | White-fronted goose | 45 | |
| 24/02/2026 | White-fronted goose | 600 | |
| 24/02/2026 | White-fronted goose | 600 | |
| 24/02/2026 | White-fronted goose | 1487 | |
| 24/02/2026 | Canada goose | 2 | |
| 24/02/2026 | White-fronted goose | 8 | |
| 24/02/2026 | Canada goose | 11 | |
| 23/03/2026 | Hen Harrier | 1 | Circling, height band 4 |
| 23/03/2026 | White-fronted goose | 23 | Landed on loch among other WG already present (incidental flight A birds). Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 18 | Landed among other WG on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 30 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 250 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 42 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 450 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 175 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 95 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 125 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 64 | Landed on Tangy loch. Height bands 5,4,3,2,1. |
| 23/03/2026 | White-fronted goose | 12 | Height band 5. |
| 09/04/2026 | Common gull | 14 | |
| 09/04/2026 | Greylag goose | 31 | Took off from loch |
| 09/04/2026 | White-fronted goose | 6 | Took off from loch together with the 31GJ |
| 09/04/2026 | Greylag goose | 21 | Took off from loch |
| 09/04/2026 | Ross' goose | 1 | Took off from loch with the 10GJ |

| Date | Species* | No. of Birds | Notes |
|---|---|---|---|
| 09/04/2026 | Tundra bean goose | 1 | Took off from loch with the 10GJ |

*Note that all registrations of birds recorded as the 2-letter British Trust for Ornithology (BTO) species code "WG", which is the code for white-fronted goose, were assumed to be Greenland white-fronted goose (for which the 2-letter BTO species code is "NW") for the purposes of the OIA

### Table E.2: Registrations of Species Not in Flight Recorded during Roosting Goose Surveys

| Date | Species | No. of Birds | Notes |
|---|---|---|---|
| 12/11/2025 | Tufted duck | 18 | Feeding |
| 12/11/2025 | Goldeneye | 3 | Feeding |
| 25/11/2025 | Wigeon | 2 | |
| 25/11/2025 | Tufted duck | 12 | |
| 25/11/2025 | Goldeneye | 10 | |
| 25/11/2025 | Mallard | 2 | |
| 25/11/2025 | Sparrowhawk | 1 | Carrying food |
| 11/12/2025 | Ring-necked duck | 4 | |
| 11/12/2025 | Tufted duck | 12 | |
| 11/12/2025 | Goldeneye | 11 | |
| 11/12/2025 | Mallard | 2 | |
| 21/12/2025 | Mallard | 2 | |
| 21/12/2025 | Tufted duck | 11 | |
| 21/12/2025 | Goldeneye | 12 | |
| 09/01/2026 | Greylag goose | 86 | |
| 09/01/2026 | Ring-necked duck | 4 | Feeding |
| 09/01/2026 | Goldeneye | 8 | |
| 09/01/2026 | Mallard | 3 | |
| 09/01/2026 | Barn owl | 1 | |
| 09/01/2026 | Tawny owl | 1 | Calling |
| 20/01/2026 | Tufted duck | 8 | |
| 20/01/2026 | Goldeneye | 3 | |
| 20/01/2026 | Mallard | 2 | |
| 24/02/2026 | Canada goose | 2 | |
| 24/02/2026 | Ring-necked duck | 5 | |
| 24/02/2026 | Goldeneye | 20 | |
| 24/02/2026 | Tufted duck | 6 | |
| 24/02/2026 | Mallard | 6 | |
| 24/02/2026 | Cormorant | 2 | |
| 23/03/2026 | White-fronted Goose | 43 | Loafing |
| 23/03/2026 | Greylag Goose | 1 | Loafing, in with WG |
| 23/03/2026 | Ring-necked Duck | 5 | Roosting at edge of Tangy Loch, 2 males 3 females |
| 09/04/2026 | Greylag Goose | 8 | Roosting and loafing |
| 09/04/2026 | RJ | 1 | |
| 09/04/2026 | Canada Goose | 10 | Five pairs roosting and loafing on loch |
| 09/04/2026 | Greylag Goose | 44 | |
| 09/04/2026 | White-fronted Goose | 6 | |

| Date | Species | No. of Birds | Notes |
|---|---|---|---|
| 09/04/2026 | Tundra Bean Goose | 1 | |
| 09/04/2026 | Ring-necked Duck | 4 | Feeding on loch, 1 male, 3 females |
| 09/04/2026 | Tufted Duck | 8 | Feeding on loch, 6 males, 2 females |
| 09/04/2026 | Goldeneye | 20 | |
| 09/04/2026 | Mallard | 8 | Feeding on loch, 7 males, 1 female |
| 21/04/2026 | Greylag Goose | 1 | Bird sitting on nest |
| 21/04/2026 | Greylag Goose | 1 | Bird sitting on nest |
| 21/04/2026 | Greylag Goose | 1 | Bird sitting on nest |
| 21/04/2026 | Greylag Goose | 5 | |
| 21/04/2026 | Tufted Duck | 3 | 2 males, 1 female |
| 21/04/2026 | Goldeneye | 4 | |
| 21/04/2026 | Mallard | 4 | 3 males, 1 female |
| 21/04/2026 | Common Sandpiper | 2 | |
| 21/04/2026 | Cormorant | 2 | |
| 21/04/2026 | Common Gull | 18 | Adults paired up, nest building, displaying |