



AI Appendix 8B Breeding Bird Surveys Apr-Sept 19





Lewis Wind Power

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Stornoway Wind Farm Ltd

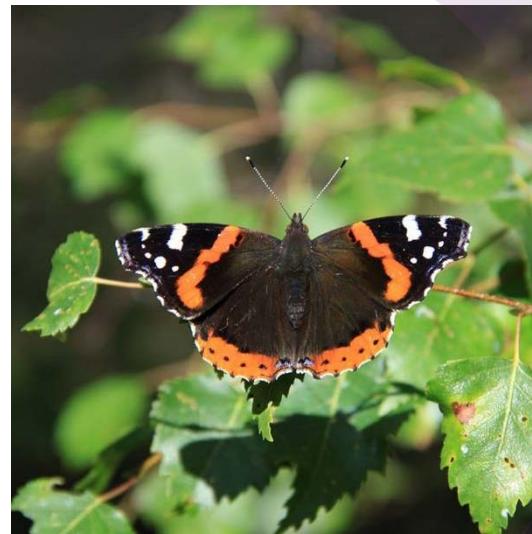
Stornoway Wind Farm

Additional Information

Chapter 8 Ornithology

Appendix 8B. Bird Surveys

April – September 2019



Report for

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Document revisions

No.	Details	Date
1	Draft Report	13/12/2019
2	Final Report	17/02/2020

Executive summary

Purpose of this report

Stornoway Wind Farm Limited (the Applicant) is proposing to construct and operate a wind farm currently anticipated to comprise up to 35 turbines with a generating capacity in excess of 50MW on the site of the existing consented (but not yet built) Stornoway Wind Farm. The Consented Stornoway Wind Farm gained section 36 consent and planning permission in September 2012 (Stornoway Wind Farm 2012) and in 2015 an application was made to amend this consent with regard to the layout, output and size of the wind turbines, this being granted in spring 2016 (Stornoway Wind Farm Variation 2016). The site of the consented Stornoway Wind Farm 2017 is located to the south west of the town of Stornoway on the Isle of Lewis and centred on National Grid Reference (NGR) E137149, N933373. The current application (subsequently referred to as the Proposed Development) would comprise a revised layout, with turbine tip heights of approximately 156m (x10 turbines) and 180m (x25 turbines) and turbine rotor diameters of 136m and 150m respectively.

Changes to the consented wind farm layout and / or turbine specifications could potentially have implications on the existing assessed ornithological impacts of the wind farm. Furthermore, the status of the baseline bird populations and flight activity patterns will have potentially changed since the original application. Therefore, a comprehensive suite of survey work was initiated in October 2017 and continued until September 2019 to provide two years baseline information.

Previous appendices providing details of surveys carried out for the first year were submitted as part of the Environmental Impact Assessment (**EIA**) (Wood, 2019) for the Proposed Development (**Appendix 8B** and **Appendix 8C**, Wood 2019).

This appendix presents methods and results of bird surveys carried out over the second breeding period (April – September 2019) and forms part of **AI Chapter 8 Ornithology** of the Additional Information (**AI**) submitted in support of the EIA for the Proposed Development. Methods and results of surveys carried out from October 2018 – March 2019 (representing the second non-breeding period) are presented in **AI Chapter 8, AI Appendix A**.

An extensive survey programme covered the period April – September. In summary, the following was undertaken:

- ▶ 54 hours Vantage Point (VP) survey effort at seven VP locations, with 15 hours being undertaken at VP1 plus an additional 57 hours at its replacement location, VP 14;
- ▶ 22.5 days Moorland Bird Survey (MBS) split across four monthly visits April – July;
- ▶ 28 days breeding raptor surveys covering the period April – July;
- ▶ 11 days breeding diver surveys covering May – July;
- ▶ 96 hours targeted hen harrier focal watch surveys, covering six locations that recorded a total of 189 flights;
- ▶ 239.75 hours targeted red-throated diver focal watch surveys, covering five breeding locations that recorded a total of 102 flights into and out of breeding lochs;
- ▶ 155 hours targeted black-throated diver focal watch surveys, covering three breeding locations that recorded a total of 17 flights.

VP surveys recorded flights from a total of 17 species. The five most frequently recorded species were common tern, golden eagle, great skua, hen harrier, and red-throated diver.



Breeding bird surveys indicated that 24 key species of conservation concern were breeding or possibly breeding (short-eared owl) within 2km of the Site, of which eight were Wildlife and Countryside Act 1981 (as amended) Schedule 1 species (black-throated diver; golden eagle; greenshank; hen harrier; merlin; red-throated diver, whimbrel and whooper swan). All of the seven qualifying species for the adjacent Lewis Peatlands SPA were recorded breeding within 2km of the site except golden eagle.

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1. Introduction

1.1 Background

- 1.1.1 Stornoway Wind Farm Limited has submitted an application under section 36 of the Electricity Act (1989) (as amended) to construct and operate a wind farm currently anticipated to comprise up to 35 turbines with a generating capacity in excess of 50MW on the site of the consented Stornoway Wind Farm Variation 2016. The application for the proposed wind farm scheme is hereafter referred to as the 'Proposed Development'.
- 1.1.2 The consented Stornoway Wind Farm 2012 gained section 36 consent and deemed planning permission in September 2012 to construct and operate 36 wind turbines. In May 2015, an application was made under the Electricity Act 1989 to amend this consent with regard to the layout, output and size of the wind turbines, with this being granted in spring 2016. Stornoway Wind Farm currently has a consented maximum generating capacity of 180MW, with each turbine having an output of up to 5MW. A further direction to extend the commencement of development date to 06 September 2020 was granted in June 2017.
- 1.1.3 The site of the consented Stornoway Wind Farm 2016 (hereafter referred to as the 'Site') is located to the south west of the town of Stornoway on the Isle of Lewis and centred on National Grid Reference (NGR) E137149, N933373.
- 1.1.4 The Proposed Development comprises a revised layout, with turbine tip heights of approximately 156m and 180m and turbine rotor diameters of potentially 136m and 150m respectively. The proposed blade tip heights and rotor diameters would maximise potential renewable energy generation at the Site.
- 1.1.5 Changes to the consented wind farm layout and / or turbine specifications could potentially have implications on the existing assessed ornithological impacts of the wind farm. Furthermore, the status of the baseline bird populations and flight activity patterns will have potentially changed since the original application. Therefore, a comprehensive suite of survey work was initiated in October 2017 and continued until September 2019 to provide two years baseline information.
- 1.1.6 Previous appendices providing details of surveys carried out for the first year were submitted as part of the Environmental Impact Assessment (**EIA**) (Wood, 2019) for the Proposed Development (Appendix 8B and Appendix 8C, Wood 2019).
- 1.1.7 This appendix presents methods and results of bird surveys carried out over the second breeding period (April – September 2019) and forms part of Chapter 8 Ornithology of the Supplementary Environmental Information (**SEI**) submitted in support of the EIA for the Proposed Development. Methods and results of surveys carried out from October 2018 – March 2019 (representing the second non-breeding period) are presented in **AI Chapter 8, AI Appendix A**.
- 1.1.8 **Annex A** presents figures of flight activity and breeding locations of non-sensitive species, whilst figures for sensitive species are contained within the **AI Appendix 8C: Confidential Appendix**. **Annex B** contains scientific names of all species referred to in this report, whilst **Annex C** and **Annex D** presents raw survey and flight data.

1.2 Site Description

- 1.2.1 The Site is located approximately 1.5km west of the town of Stornoway, Isle of Lewis. It is centred at National Grid Reference (NGR) E 137149 N 933373. The Site area extends to approximately 1,700ha, although the wind farm infrastructure would occupy only a small part of the overall Site.
- 1.2.1 The topography of the Development Site ranges between 50 – 150m Above Ordnance Datum (AOD), with three hillocks within its northern, central and southern areas. The Site is dominated by blanket bog and associated mosses and heather, though there are some areas of woodland present. There are also a large number of water bodies, both standing and flowing, none of which have any conservation designations.
- 1.2.2 Access to the Site is via the A859. The A858 runs through the northern part of the Development Site, and partly along the western boundary.
- 1.2.3 Other than the residential area of Stornoway to the east, the area surrounding the Site consists predominantly of boggy, undeveloped peatland and is not subject to any environmental designations.
- 1.2.4 To the west of the Development Site is included in the Lewis Peatlands RAMSAR Site, Special Protection Area (SPA) and Special Area of Conservation (SAC) primarily on the basis of its blanket bog habitats and breeding bird populations.

2. Survey Methods

2.1.1 It should be noted that during the 2019 breeding season other ornithological survey teams (Stagfire Ecology, Caledonian Bird Surveyors) were covering similar survey areas on behalf of other prospective wind farm developers, in addition to monitoring work undertaken by the Lewis and Harris Raptor Study Group (LHRSG). Throughout the survey season, all survey teams and the LHRSG kept in regular contact, sharing key survey data such as nest locations of sensitive species and any relevant updates on nest status in order to ensure that disturbance at key breeding sites was kept to a minimum.

2.2 Vantage Point Surveys

2.2.1 Vantage Point (VP) watches were undertaken following the standard practices outlined in SNH guidance (2017) covering the period April to September 2019 inclusive. Locations were initially the same as those used during the October 2017 – September 2018 surveys (**AI Figure 8B.2.1**), with the exception of two locations. VP 6 and VP 7, located to the south west of the site boundary of the Proposed Development, which were excluded from the surveys as a large proportion of their viewshed fell outside of the proposed development boundary and 500m buffer. Any areas of their viewsheds that did fall within the proposed development boundary and 500m buffer were covered by the viewsheds of VP 5 and VP 8.

2.2.2 Following the discovery of a red-throated diver breeding location in close proximity to VP 1 on the 5th June 2019, a new location (VP 14) was established and watches commenced from 18th June at the new location.

2.2.3 The grid references for these locations are as follows:

- ▶ VP 1 – NB 39378 36606;
- ▶ VP 2 – NB 36132 35739;
- ▶ VP 3 – NB 38260 33600;
- ▶ VP 4 – NB 39860 33719;
- ▶ VP 5 – NB 35054 32180;
- ▶ VP 8 – NB 37516 30748;
- ▶ VP 14 – NB 40472 36354.

2.2.4 Following the recommended methodology (SNH 2017), the altitude of the target bird was recorded at 15 second intervals, and flights were split across four height bands, with Potential Collision Height (PCH) covering bands B and C:

- ▶ A: < 20m;
- ▶ B: 20m – 100m;
- ▶ C: 100m – 200m; and
- ▶ D: 200m >

2.2.5 Target species were identified as:

- ▶ Geese and swans;
- ▶ Golden eagle;
- ▶ White-tailed eagle;
- ▶ Merlin;
- ▶ Hen harrier;
- ▶ Peregrine;
- ▶ Short-eared owl;
- ▶ Divers
- ▶ Waders; and
- ▶ Skuas.



- 2.2.6 Given the proximity of the Lewis Peatlands SPA / Ramsar and the large range of target species identified in the area the time spent watching from each vantage point over the course of the breeding season in 2018 totalled 54 hours at each location with the exception of VP 1 (15 hours) and VP 14 (57 hours).
- 2.2.7 Effort was made to ensure that the data was representative and therefore dusk, dawn and daytime watches were all undertaken. Survey effort, including a summary of weather conditions, is presented in **Table C.1, Annex C**.

2.3 Moorland Bird Surveys

- 2.3.1 A Moorland Bird Survey (MBS) based on an adaptation of the Brown & Shepherd (1993) method (as advocated by SNH (2017)) was used to record breeding waders, ground nesting raptors, skuas, gulls, and wildfowl species.
- 2.3.2 This is a generic methodology used to survey breeding upland wading birds, which is commonly adapted to include other moorland species. A constant survey effort was maintained throughout the survey area, with 20-25 minutes spent in each 500m × 500m quadrant of open land (or its equivalent). The surveyor followed a predetermined route through the compartments so that all areas were approached to within 100m or less. The location and activity of all species detected both audibly and visibly were recorded on a 1:10,000 scale field map.
- 2.3.3 Four survey visits were undertaken between April and July 2019, covering the Development Site boundary plus a 500m buffer (**AI Figure 8B.2.2**), with at least seven days between visits. In order to ensure that periods of peak detectability for greenshank were covered the first visit took place between 16th April to 8th May; and the third visit took place from 1st to 23rd June (Hancock, 1997).
- 2.3.4 Visits were undertaken between 08.30 and 18.00 in dry weather and low winds (less than Beaufort 4). Survey details are summarised in **Table 8B.2.1** and full details are presented in **Table C.2, Annex C**. Within each visit, the surveys were completed in as short a time period as possible (between 5 and 6 days for each visit) in an attempt to capture an accurate 'snapshot' of activity and avoid double counting issues that can result from surveys spread over longer time periods.

Table 8B.2.1 Moorland Bird Survey Visit Dates

	Month	Dates	Number of survey days
Visit 1	April	17 th – 24 th	5
Visit 2	May	10 th – 18 th	5.5
Visit 3	June	7 th – 9 th	5.5
Visit 4	July	11 th – 13 th	6.5

Analysis

- 2.3.5 Records from each surveyor were combined into a final map for each species, preventing duplication of the same bird records. In line with standard protocol, and with the exception of great skua and greenshank, birds were assumed to be breeding or holding territory at the recorded location if one or more of the following was recorded:
- ▶ A bird displaying or singing;



- ▶ Nests, eggs or young;
- ▶ Adults repeatedly alarm-calling;
- ▶ Distraction displays;
- ▶ Territorial disputes; or
- ▶ A pair of birds in suitable habitat.

2.3.6 Other records were considered to be of non-breeding birds.

2.3.7 Within a survey visit, duplicate records of birds in open habitats separated by less than a threshold distance of 500m for waders were, by convention, considered to correspond to birds of the same pair. Those separated by more than this threshold distance were considered to be from different pairs. Exceptions to this were where surveyors recorded birds seen simultaneously within this threshold distance which therefore definitely represented different pairs, or the same bird was observed outside the threshold distance on the same visit. Appropriate annotations were made on field maps to indicate where this was the case.

2.3.8 Numbers of territories (representing theoretical breeding pairs) were derived by comparing the four visit maps. Between visits breeding records or territories in open habitats were, by convention, considered to be separate from each other if they were more than 1000 m apart for waders (with the exception of snipe where 500m is applied). All observations were plotted on a final map and classified as red or green depending on the type of activity described above (see **Section 4** for further description of colour coding conventions used in figures). A nominal boundary to indicate individual territories was also plotted although it is stressed that this was a purely nominal representation of the territory.

Great Skua

2.3.9 Methods to determine a population estimate for great skua followed the methods described in Gilbert et al (1998). Visit 2, 3 and 4 of the MBS were used to derive maximum counts of Apparently Occupied Territories (AOT) based on classifying the following activities as confirmation of an AOT:

- ▶ Nest, egg or chicks;
- ▶ Incubating or brooding adults;
- ▶ Adults alarm calling or distracting; and
- ▶ A pair or a single bird in suitable habitat.

2.3.10 The breeding population should be reported as the maximum number of AOTs recorded on a single visit.

Gull Analysis

2.3.11 The number of Apparently Occupied Nests (AON) or AOT, based on a count of active nests from visit 2 and 3 of the MBS provided a total count.

Greenshank Analysis

2.3.12 Methods to determine population estimates for greenshank followed the methods of Hancock (1997). There are two periods where greenshank are most conspicuous, before egg laying (10th April – 25th May, with a peak period of 15th – 18th May) and during chick rearing (26th May – 10th July, with a peak period of 1st – 23rd June). **Table 8B.2.1** presents the survey dates at Stornoway for



2018 from which it can be seen that Visits 1 and 2 fell within the first period and Visit 3 and 4 fell within the second period. In addition, Visit 2 and Visit 3 both fell within the first and second peak detectability periods, respectively. In order to provide as full analysis as possible, data from all four survey visits were included in the analysis. This should therefore act to increase the chances of obtaining a higher population estimate.

- **Population Estimate from a Peak Count of Adults:** Following the methods of Hancock, the highest count of adults from either Visit 1 or 2 of the first survey period or Visit 3 or 4 of the second period was selected and this figure halved to derive a population estimate;
- **Population Estimate from a Count of Broods:** Following the methods of Hancock, any adults encountered alarm calling (chipping) during the second survey period (peak count from Visit 3 or 4) were assumed to be accompanying broods. Unless otherwise indicated, it was assumed that each registration represented a single brood. However, there were four instances where several registrations were in close proximity (within 200m) or within a discrete area (i.e. bog pool systems) that were considered to be records of a single brood.

2.4 Breeding Raptor Surveys

- 2.4.1 SNH guidelines recommend that surveys for breeding raptors follow survey techniques described in Hardey et al (2009), including a requirement that data be collected from within 2 km of the proposed Site and should be focussed on those species as being most likely to occur (in this instance, hen harrier, merlin and short-eared owl).
- 2.4.2 In addition to the MBS surveys, breeding raptor surveys covering all areas within the Site boundary plus a buffer of 2km (**AI Figure 8BC.2.2**), following recommended survey methods (Hardey et al 2009), were carried out on the following dates (full survey details are presented in **Table C.2, Annex C**):
- ▶ April: 9th – 11th inclusive, 13th and 15th;
 - ▶ May: 4th – 10th inclusive, 23rd and 24th;
 - ▶ June: 16th – 21st inclusive, and 23rd – 27th inclusive;
 - ▶ July: 13th, 14th and 16th.
- 2.4.3 Note that all known raptor nests within the 2km survey area had either fledged or failed by the end of July, and so no further breeding raptor surveys were undertaken in August.
- 2.4.4 Where signs of raptor activity (e.g. sightings of birds, pellets etc.) were recorded the surveyor spent time scanning the area with binoculars to focus the searches for nest locations. The signs of territory occupation recorded included birds delivering food, calling individuals, territorial defence, resting individuals, nest sites, chicks and eggs. In addition, other signs of activity were used to determine the likelihood of an area being occupied; these included prey remains, pellets, feathers and white wash. Information gathered during other surveys (VP surveys, MBS, Breeding Diver) on ground nesting raptor activity was also used to focus the survey effort.
- 2.4.5 Furthermore, the Wood survey team worked closely with the LHRSG and other field survey teams throughout the survey period including sharing information on raptor nest sites. Note that surveys of known golden eagle and white-tailed eagle nest sites within 6km of the Site were co-ordinated with the LHRSG in order to minimise unnecessary disturbance at the breeding sites.



2.5 Breeding Hen Harrier Focal Watch Surveys

- 2.5.1 Where it was either confirmed or considered possible that an active hen harrier nest location was present within the 2km search area, focal watches took place from suitable locations. These were aimed at understanding the pattern of hen harrier activity in the areas around potential or confirmed nesting locations and were established from the time that breeding in the area was considered probable or an active nest was located until such time that:
- The chicks fledged and were no longer reliant upon the adults for food; or
 - It was confirmed that a territory was not established or the nest failed.
- 2.5.2 Each focal watch followed the same procedure as a standard VP watch (i.e. a 2 km 180° viewshed viewed for a period of three hours) with the exception that only hen harrier activity was recorded.
- 2.5.3 Five focal watches were established covering seven confirmed breeding attempts (see **AI Appendix 8C: Confidential Appendix** for a brief history of each location). **Table 8B.2.2** provides a summary of survey effort at each of these locations (full details are provided in **Table C.3, Annex C**).

Table 8B.2.2 Hen Harrier Focal Watch Locations and Coverage 2019

Territory ID	Focal watch ID	First Focal Watch observation date	Last Focal Watch Observation date	Total survey time (hours)
HH1	HH FW4	19/05/2019	01/07/2019	21
HH2 & HH3	HH FW8	20/05/2019	03/06/2019	12
HH4 & HH7	HH FW9	19/05/2019	05/07/2019	39
HH5	HH FW10	20/05/2019	27/06/2019	18
HH6	HH FW11	04/06/2019	10/06/2019	6

2.6 Breeding Diver Surveys

- 2.6.1 Breeding diver surveys followed the standard methodology based on Gilbert *et al* (1998). All water bodies within the Site and a 1km buffer were numbered using the following convention to aid survey management (**AI Figure 8B.2.3**):
- ▶ All waterbodies greater than 0.5ha were allocated a unique ID in their own right; and
 - ▶ Smaller waterbodies less than 0.5ha were buffered by 50m. If the buffer did not overlap with any other buffered waterbodies, it was given a unique ID. Where the buffers of smaller waterbodies overlapped, the buffers were merged to form a unique ID that represented smaller bog pool systems.
- 2.6.2 Each waterbody was visited at least twice to check for the presence of red-throated and black-throated divers. The first visit was undertaken to detect occupancy of territories. Waterbodies were only observed at distance, using a telescope on this visit so as to avoid unnecessary disturbance at a sensitive early breeding stage. During the second and third visits waterbodies were observed at distance using a telescope for half an hour initially. All signs of breeding were noted (e.g. nest scrapes, incubating birds, chicks, eggshell fragments). If divers were observed on the water, but no signs of breeding are detected, or if no birds were observed at all then the entire shoreline was



walked, looking for evidence of nest scrapes, hidden chicks, and eggshell fragments. If this also proved inconclusive, the surveyor would observe the lochan from distance for a further hour. Signs of breeding from previous years (such as old nest scrapes or eggshell fragments) were also recorded, to contribute to building a picture of historic use, as divers will not breed every year. Every effort was made to avoid disturbance to breeding birds.

2.6.3 All divers (including age and behaviour) and signs (such as nest scrape, eggshell fragments, dead chicks) were recorded on large scale maps. Survey timings and weather conditions were also recorded. Survey details are presented in **Table C.2, Annex C**.

2.6.4 Visit dates were:

- ▶ Visit 1: 23rd May, 4th – 6th June;
- ▶ Visit 2: 3rd, 15th and 16th July;
- ▶ Visit 3: 24th and 30th July, 1st and 2nd August.

2.6.5 Where breeding divers were noted as present further checks to determine productivity were undertaken during focal watch surveys targeted at breeding diver lochs.

2.7 Breeding Diver Focal Watch Surveys

2.7.1 Where divers were confirmed to be breeding, focal watches were undertaken following SNH guidelines to determine the typical flight lines taken by the provisioning adults between the nesting location and feeding areas. These focal watches began or ended at dawn or around dusk to maximise the potential of birds leaving/returning to the breeding site being observed. Each watch lasted for 3 hours and used the same methods as for the vantage point watches (with the exception that only diver activity was recorded formally).

2.7.2 Incoming and outgoing flights were recorded during both the incubation and chick-rearing periods, the aim being to record a total of 20-30 incoming and outgoing flights for each breeding location, although it is acknowledged that this may be hampered by pairs failing and activity changing.

2.7.3 Six focal watches were established covering eight confirmed breeding attempts within the survey area (see **A1 Appendix 8C: Confidential Appendix** for more detailed information). **Table 8B.2.3** provides a summary of survey effort at each of these locations (full details are provided in **Table C.4, Annex C**).

Table 8B.2.3 Diver Focal Watch Locations and Coverage 2018

Species	Nest ID	First Focal Watch observation date	Last Focal Watch Observation date	Total survey time (hours)
Diver FW1	Red-throated diver	RH3	11/06/2019	06/07/2019
Diver FW2	Red-throated diver	RH4	12/06/2019	24/07/2019
Diver FW4	Red-throated diver	RH1	08/06/2019	26/07/2019
Diver FW6	Black-throated diver	BV1	07/06/2019	28/06/2019
Diver FW7	Red-throated diver	RH2 BV4	09/06/2019	25/08/2019



Species	Nest ID	First Focal Watch observation date	Last Focal Watch Observation date	Total survey time (hours)
Diver FW8	Red-throated diver RH6 BV5	30/06/2019	04/08/2019	57

3. Survey Results

3.1 Vantage Point surveys

- 3.1.1 A summary of all flight activity recorded from VP surveys from April to September 2019 is shown in **Table 8B.3.1**. Note this accounts for multiple birds recorded on a single flight line (e.g. four birds recorded for 30 seconds = 120 seconds). The table indicates whether the bird is a qualifying feature of the Lewis and Peatlands SPA, is listed on Annex 1 of the Birds Directive, Schedule 1 of the Wildlife and Countryside Act (as amended) (W.C.A.) or is a species of principal importance on the Scottish Biodiversity list (SBL). The species status on the Birds of Conservation Concern List is displayed as green, amber or red (BoCC) (Eaton et al 2015).
- 3.1.2 Species have been arranged alphabetically as opposed to taxonomically for convenience.

Table 8B.3.1 Seconds of Activity by Height Band from VP Flight Data April-September 2019

	Number of flights	Status	Band A (0-20 m)	Band B + C (PCH 20-200 m)	Band D (200 m+)	Proportion of time at PCH %
Black-throated diver*	26	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 ¹ SBL BoCC Amber List	1,035	2,490	30	70
Common tern	75	Annex1 Birds Directive SBL BoCC Amber List	12,720	10,530	4,290	38
Dunlin	8	Lewis Peatlands SPA / Ramsar SBL BoCC Amber List	315	255	-	45
Golden eagle*	38	Lewis Peatlands SPA W.C.A. Schedule 1, 1A and A1 SBL BoCC Green List	690	7,965	1,680	77
Golden plover	31	Lewis Peatlands SPA / Ramsar SBL BoCC Green List	1,380	4,260	-	61
Great skua	267	BoCC Amber List	14,970	21,005	1,485	56
Greenshank*	5	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 BoCC Amber List	120	150	-	56
Greylag goose	44	BoCC Amber List (status relates to wintering population)	3,120	15,735	0	83

¹ Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) makes it an offence to recklessly or intentionally disturb any Schedule 1 species while they are nest building, or at a nest containing eggs or young, or to disturb the dependant young of such birds. Further protection is given to birds listed on Schedule 1A (it is an offence **at any time** to harass a white-tailed eagle, golden eagle, hen harrier or red kite) and Schedule A1 (it is an offence to damage a nest of a white-tailed eagle or golden eagle)



	Number of flights	Status	Band A (0-20 m)	Band B + C (PCH 20-200 m)	Band D (200 m+)	Proportion of time at PCH %
Hen harrier*	53	Annex 1 Birds Directive W.C.A. Schedule 1 and 1A SBL BoCC Red List	5,040	2,355	-	32
Merlin*	16	Lewis Peatlands SPA W.C.A. Schedule 1 SBL BoCC Red List	612	345	-	36
Pink-footed goose	5	BoCC Amber List (status relates to wintering population)	-	16,830	6,480	72
Red-breasted merganser	1	BoCC Green List	30	-	-	0
Red-throated diver*	101	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 SBL BoCC Green List	2,145	19,725	735	87
Short-eared owl*	5	Annex 1 Birds Directive SBL BoCC Amber List	630	315	-	33
Teal	1	BoCC Amber List (status relates to wintering population)	60	-	-	00
White-tailed eagle*	12	Annex 1 Birds Directive W.C.A. Schedule 1, 1A and A1 SBL BoCC Red List	180	2,070	750	69
Whooper swan	2	Annex 1 Birds Directive W.C.A. Schedule 1 SBL BoCC Amber List	120	180	-	60

* Figures for these species are provided in the Confidential Appendix.

3.1.3 Flights were recorded from a total of 17 species during VP surveys. The five most frequently recorded species were common tern, golden eagle, great skua, hen harrier and red-throated diver:

- ▶ Common tern were recorded on 60 occasions, with 46 % of those flights at PCH;
- ▶ Golden eagle was recorded in flight on 35 occasions. Time at PCH amounted to 77 % of all flight activity;
- ▶ Great skua was recorded in flight on 267 occasions. Time at PCH amounted to 56 % of all flight activity;
- ▶ Hen harrier was recorded in flight 41 times although only 32 % of those flights were recorded at PCH;
- ▶ One hundred and one red-throated diver flights were recorded during VP surveys, with 87 % occurring at PCH.



- 3.1.4 A further five species were recorded in flight more than ten times (black-throated diver, golden plover, greenshank, greylag goose and merlin).
- 3.1.5 Figures showing the distribution of flight activity for sensitive species associated with breeding locations (black-throated diver, golden eagle, greenshank, hen harrier, merlin, red-throated diver, short-eared owl and white-tailed eagle) are presented within **AI Appendix 8C: Confidential Appendix**. Full details of all flight data are provided in **Table D.1, Annex D**.
- 3.1.6 Figures showing the flight activity for all other species recorded during VP surveys are presented alongside data collected from breeding bird surveys for context (**AI Figures 8B.3.1 – 8B.3.17**)
- 3.1.7 Final species maps prepared for presentation within this report or Confidential Appendix followed the following conventions:
- ▶ Flight lines split by height band:
 - Green = below 20m;
 - Red = 20-200m;
 - Blue = 200m+.

3.2 Focal Watch Surveys

- 3.2.1 Note that figures presenting the distribution of flight activity recorded during focal watches for black-throated diver, hen harrier and red-throated diver are contained within the **AI Appendix 8C: Confidential Appendix**, whilst a brief summary is presented below.

Black-throated Diver

- 3.2.2 Flight data recorded from focal watch surveys at the three breeding locations monitored showed that the majority of flights occurred to and from other large lochs in the area that formed part of the foraging ranges of the three territories. Flight activity was also observed during surveys at other Diver Focal Watch locations, including going to and from Loch a Chlacain (Loch ID 56) on the western edge of the site. **Table 8B.3.2** summarises the activity recorded during focal watch surveys (note this accounts for multiple birds recorded on a single flight line (e.g. four birds recorded for 30 seconds = 120 seconds), whilst full details are shown in **Table D.2, Annex D**.

Table 8B.3.2 Black-throated Diver Focal Watch Data April- August 2019

	Total number of flights recorded	Time at height band A (0-20 m)	Time at height Band B (20-100 m)	Time at height Band C (100-200 m)	Time at height band D (200 m+)	Total number flights recorded in/out of breeding loch
Diver FW 6	4	60	270	-	-	3
Diver FW 7	16	735	1,200	15	-	9
Diver FW 8	8	150	570	105	-	5
Total	36	1,020	2,625	120	-	17

Hen Harrier

- 3.2.3 Flight data recorded from focal watch surveys showed that the key areas for flight activity during the breeding season in 2019 were in close proximity (particularly intense within 1km around each nest site) to the seven confirmed breeding attempts identified within the 2km survey area (in addition, a further two territories were located outside of the 2km survey area - see **A1 Appendix 8C: Confidential Appendix**).
- 3.2.4 **Table 8B.3.3** summarises the activity recorded during focal watch surveys (note this accounts for multiple birds recorded on a single flight line (e.g. four birds recorded for 30 seconds = 120 seconds)), whilst full details are shown in **Table D.3, Annex D**.

Table 8B.3.3 Hen Harrier Focal Watch Data April- July 2019

	Total number of flights recorded	Time at height band A (0-20m)	Time at height Band B (20-100m)	Time at height Band C (100-200m)	Time at height band D (200m+)
HH FW 4	14	510	165	-	-
HH FW 8	11	465	180	-	-
HH FW 9	33	1,470	75	-	-
HH FW 10	16	585	165	255	-
HH FW 11	7	135	150	-	-
Total	81	3,165	735	255	-

Red-throated Diver

- 3.2.5 Flight data recorded from focal watch surveys carried out at five breeding locations showed that the majority of flights occurred to and from the monitored breeding lochs, and certain non-breeding lochs as well as movements of birds towards coastal feeding areas. **Table 8B.3.4** summarises the activity recorded during focal watch surveys (note this accounts for multiple birds recorded on a single flight line (e.g. four birds recorded for 30 seconds = 120 seconds)), whilst full details are shown in **Table D.2, Annex D**.



Table 8B.3.4 Red-throated Diver Focal Watch Data April- August 2019

	Total number of flights recorded	Time at height band A (0-20m)	Time at height Band B (20-100m)	Time at height Band C (100-200m)	Time at height band D (200m+)	Total number flights recorded in/out of breeding loch
Diver FW 1	19	525	3,030	390	-	10
Diver FW 2	47	690	3,615	330	330	31
Diver FW 4	46	885	4,245	105	-	23
Diver FW 7	55	995	3,570	1,050	-	22
Diver FW 8	20	525	1,020	60	-	16
Total	192	3,620	15,930	1,935	330	102

3.3 Breeding Bird Survey Results

- 3.3.1 Analysis for estimating breeding territories first examined data from the species specific surveys (i.e. MBS records for waders; breeding raptor data for breeding raptors etc.) but also considered data collected from other survey types not directly associated with that species to help provide context and consolidate analysis - for example, a breeding diver observation recorded during a breeding raptor walkover survey.
- 3.3.2 Final species maps prepared for presentation within this report or Confidential Appendix followed the following conventions:
- ▶ Species specific survey point data:
 - Red circle with black dot= breeding records;
 - Green circle with black dot = non-breeding records;
 - Labelled with visit date.
 - ▶ Additional point data from other surveys:
 - Red circle = breeding records;
 - Green circle = non-breeding records;
 - Full date of observation.
 - ▶ Non VP flight data (i.e. flights with no height band data recorded):
 - Grey;
 - Full date of observation.
 - ▶ Where relevant (diver species, for example), loch associated with breeding highlighted;
- 3.3.3 **Table 8B.4.1** summarises the number of breeding territories for key species of conservation concern. The table indicates whether the bird is a qualifying feature of the Lewis and Peatlands SPA, is listed on Annex 1 of the Birds Directive, Schedule 1 of the Wildlife and Countryside Act (as amended) (W.C.A.) or is a species of principal importance on the Scottish Biodiversity list (SBL). The



species status on the Birds of Conservation Concern List is displayed as green, amber or red (BoCC) (Eaton et al 2015). Species have been arranged alphabetically as opposed to taxonomically for convenience.

Table 8B.3.5 Breeding Territories of Key Species

	Status	Estimated territories within survey area	Estimated territories within Proposed Development Site
Black-throated diver*	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 SBL BoCC Amber List	3	1
Common sandpiper	BoCC Amber List	11	7
Common tern	Annex 1 Bird Directive SBL BoCC Amber List	Colony c. 50 pairs	Colony c. 50 pairs
Dipper	BoCC Amber List	1	1
Dunlin	Lewis Peatlands SPA / Ramsar SBL BoCC Amber List	3	2
Golden eagle*	Lewis Peatlands SPA W.C.A Schedule 1, 1A and A1 SBL BoCC Green List	3	0
Golden plover	Lewis Peatlands SPA / Ramsar SBL BoCC Green List	9	1
Great black-backed gull	BoCC Amber List	78 AON**	73 AON
Great skua	BoCC Amber List	13 AOT**	12 AOT
Greenshank*	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 SBL BoCC Amber List	3-6	2-4
Greylag goose	BoCC Amber List (relates to wintering population)	8	4
Hen harrier*	Annex 1 Birds Directive W.C.A. Schedule 1 and 1A SBL BoCC Red List	7	5
Herring gull	SBL BoCC Red List	6 colonies (c. 615 AON)	5 colonies (c. 425 AON)
Lesser black-backed gull	BoCC Amber List	2 AON	2 AON
Mallard	BoCC Amber List (relates to wintering population)	4	2



	Status	Estimated territories within survey area	Estimated territories within Proposed Development Site
Merlin*	Lewis Peatlands SPA W.C.A. Schedule 1 SBL BoCC Red List	2	0
Red grouse	SBL BoCC Amber List	10	2
Redshank	BoCC Amber List	2	2
Red-throated diver*	Lewis Peatlands SPA / Ramsar W.C.A. Schedule 1 SBL BoCC Green List	5	1
Short-eared owl*	Annex 1 Birds Directive SBL BoCC Amber List	1 possible	1 possible
Snipe	BoCC Amber List	18	6
Teal	BoCC Amber List (status relates to wintering population)	8	4
Whimbrel*	W.C.A. Schedule 1 BoCC Red List	1	1
White tailed eagle*	Annex 1 Birds Directive W.C.A. Schedule 1, 1A and A1 SBL BoCC Red List	1	0

3.3.4

Figures showing the breeding distribution for sensitive species locations (marked * in Table 8B.4.1) are presented within **AI Appendix 8C. Confidential Appendix**. **AI Figures 8B.3.1 – 8B.3.17** show the distribution of activity for all other species.

4. Conclusion

- 4.1.1 Survey results show that 20 species were recorded during VP surveys. The five most frequently recorded species were common tern, golden eagle, great skua, hen harrier and red-throated diver. Flights were recorded from all seven qualifying species from the Lewis Peatlands SPA.
- 4.1.2 Breeding bird surveys indicated that 20 key species of conservation concern were breeding or possibly breeding (short-eared owl) within 2km of the Site, four of which are red listed BoCC. Seven are included in Schedule 1 of the Wildlife and Countryside Act 1981 Schedule 1 species (black-throated diver; golden eagle; greenshank; hen harrier; merlin; red-throated diver and whooper swan), three on Schedule 1A (golden eagle, hen harrier and white-tailed eagle) and two on Schedule A1 (golden eagle and white-tailed eagle). All of the seven qualifying species for the adjacent Lewis Peatlands SPA were recorded breeding within 2km of the site except golden eagle.
- 4.1.3 Further details regarding sensitive species are included within **A1 Appendix 8C: Confidential Appendix.**



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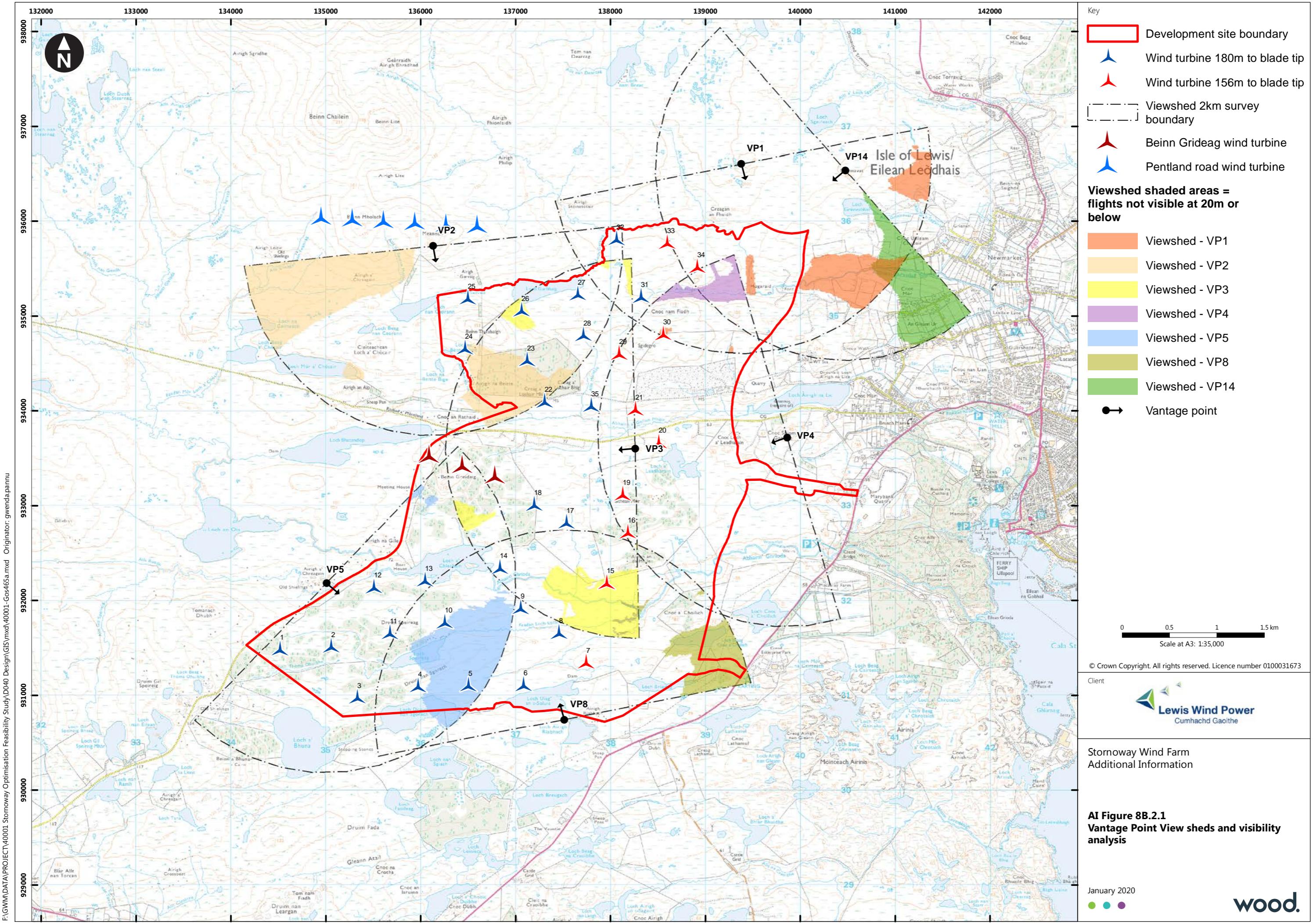
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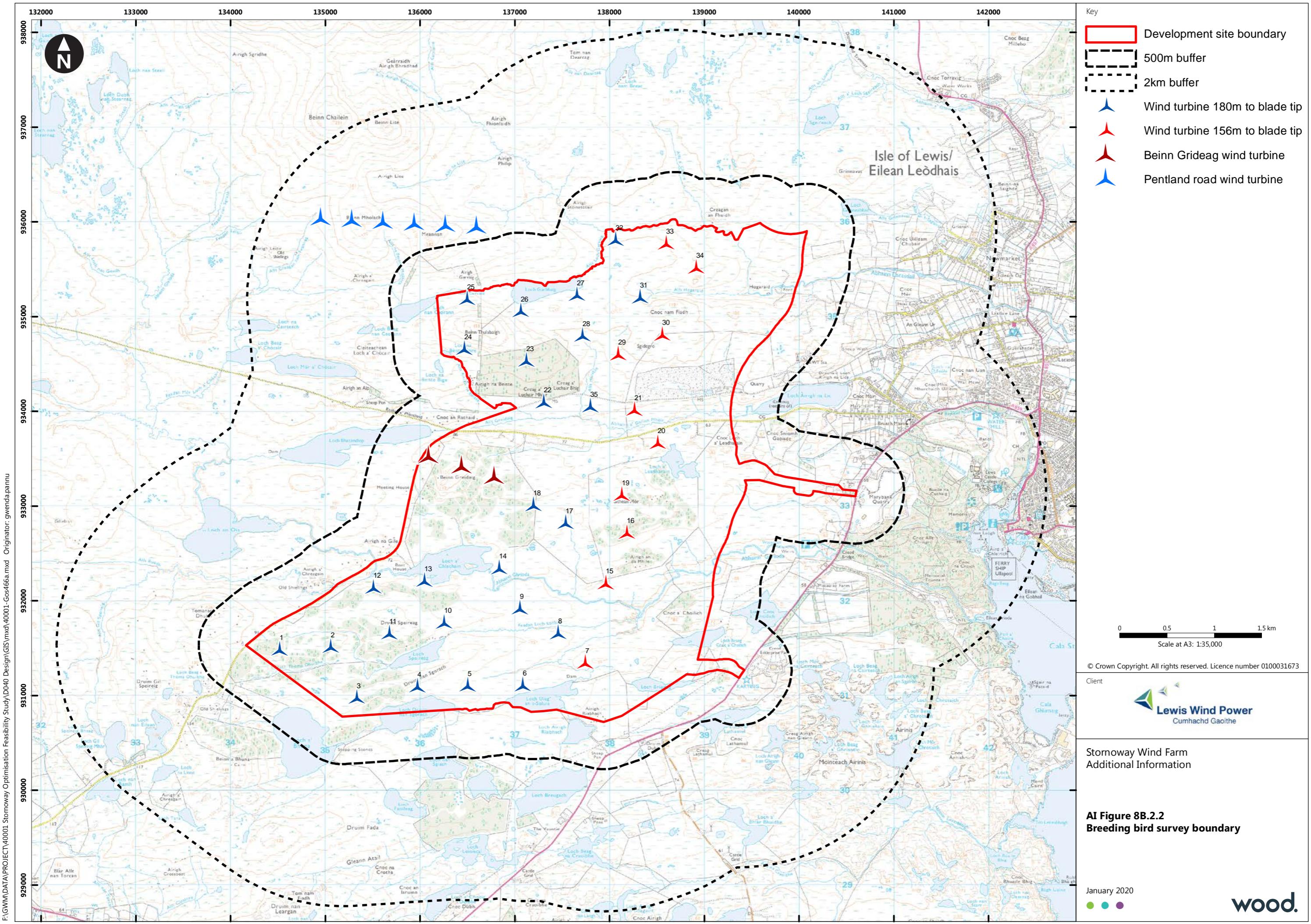
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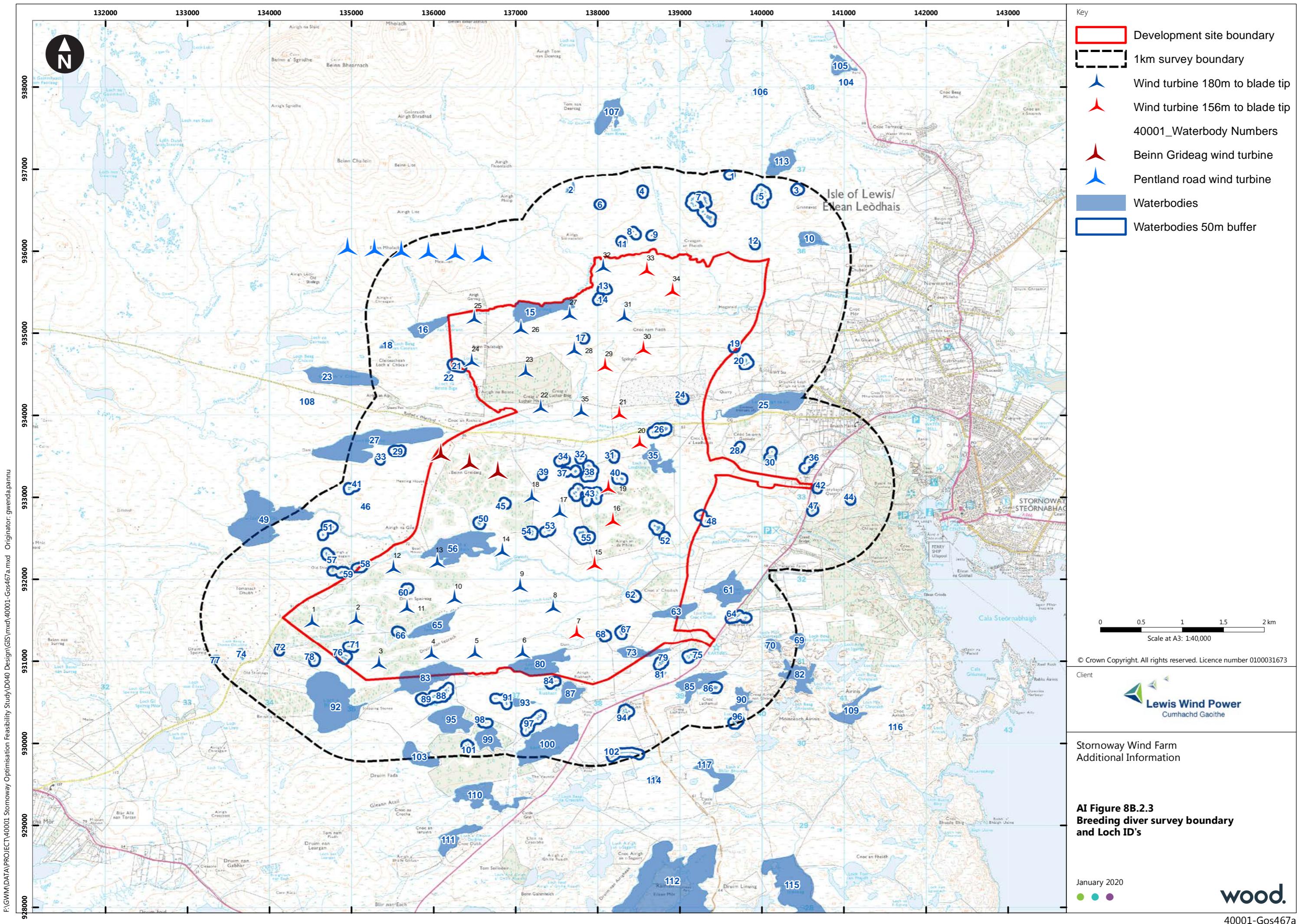
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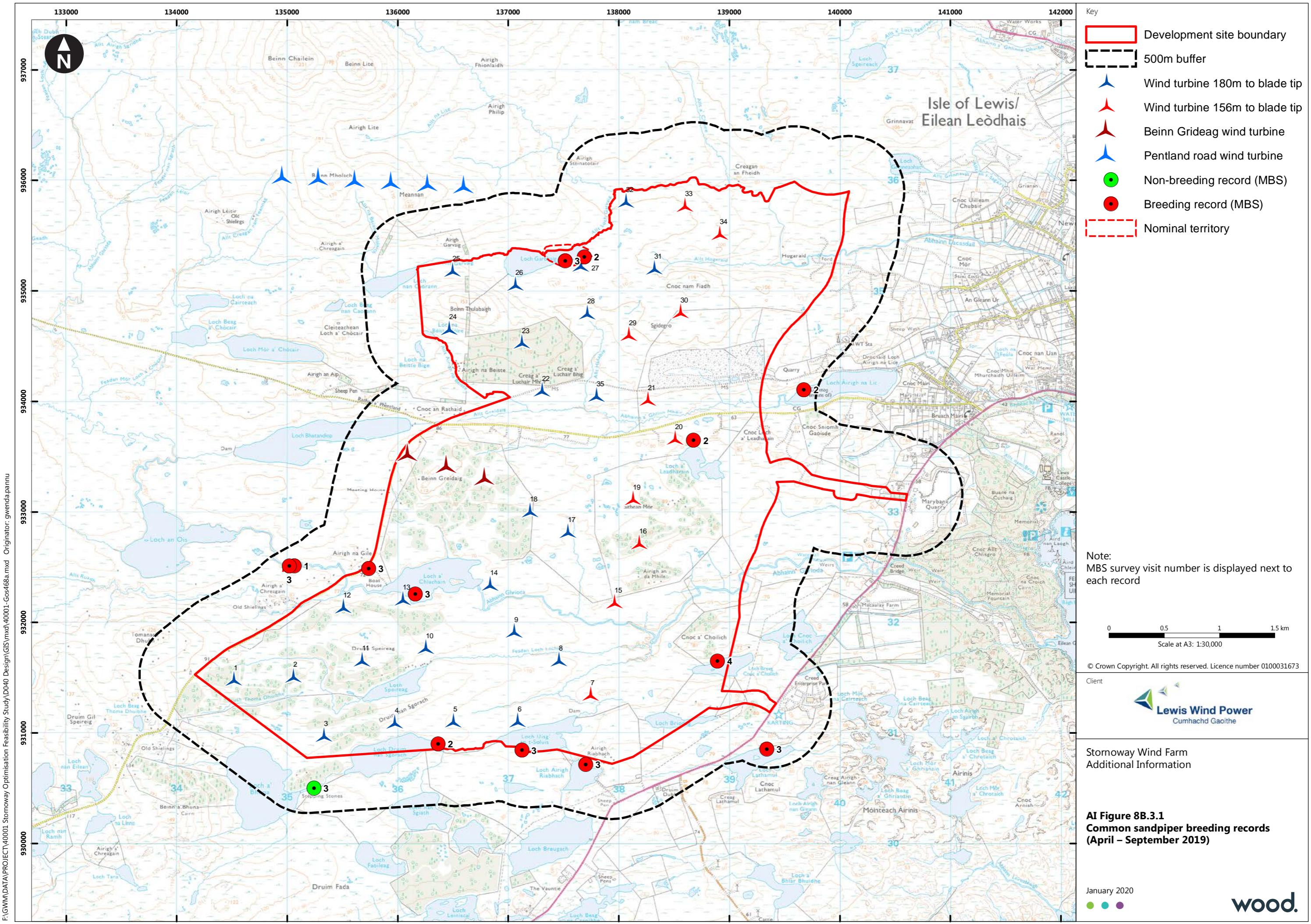
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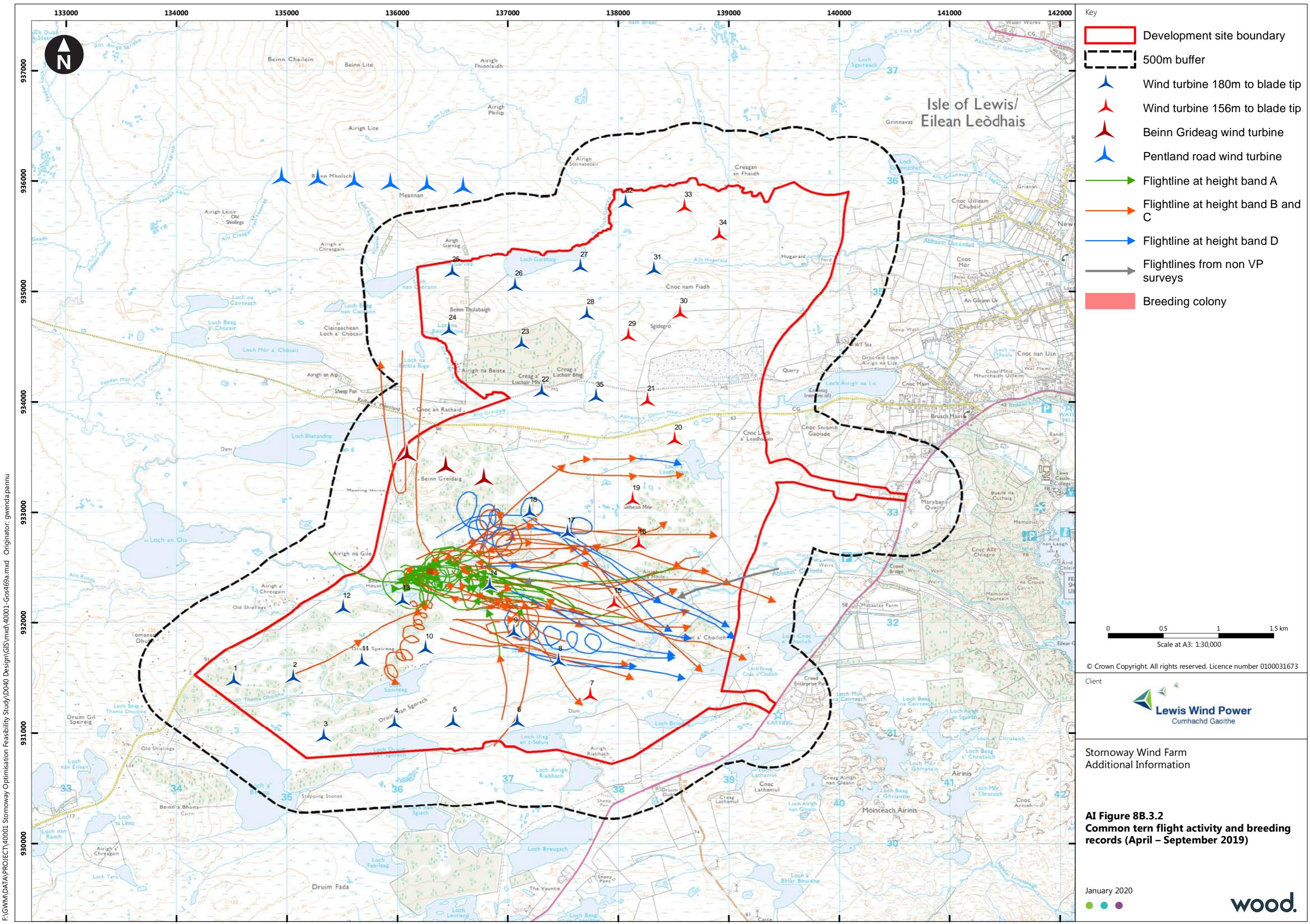
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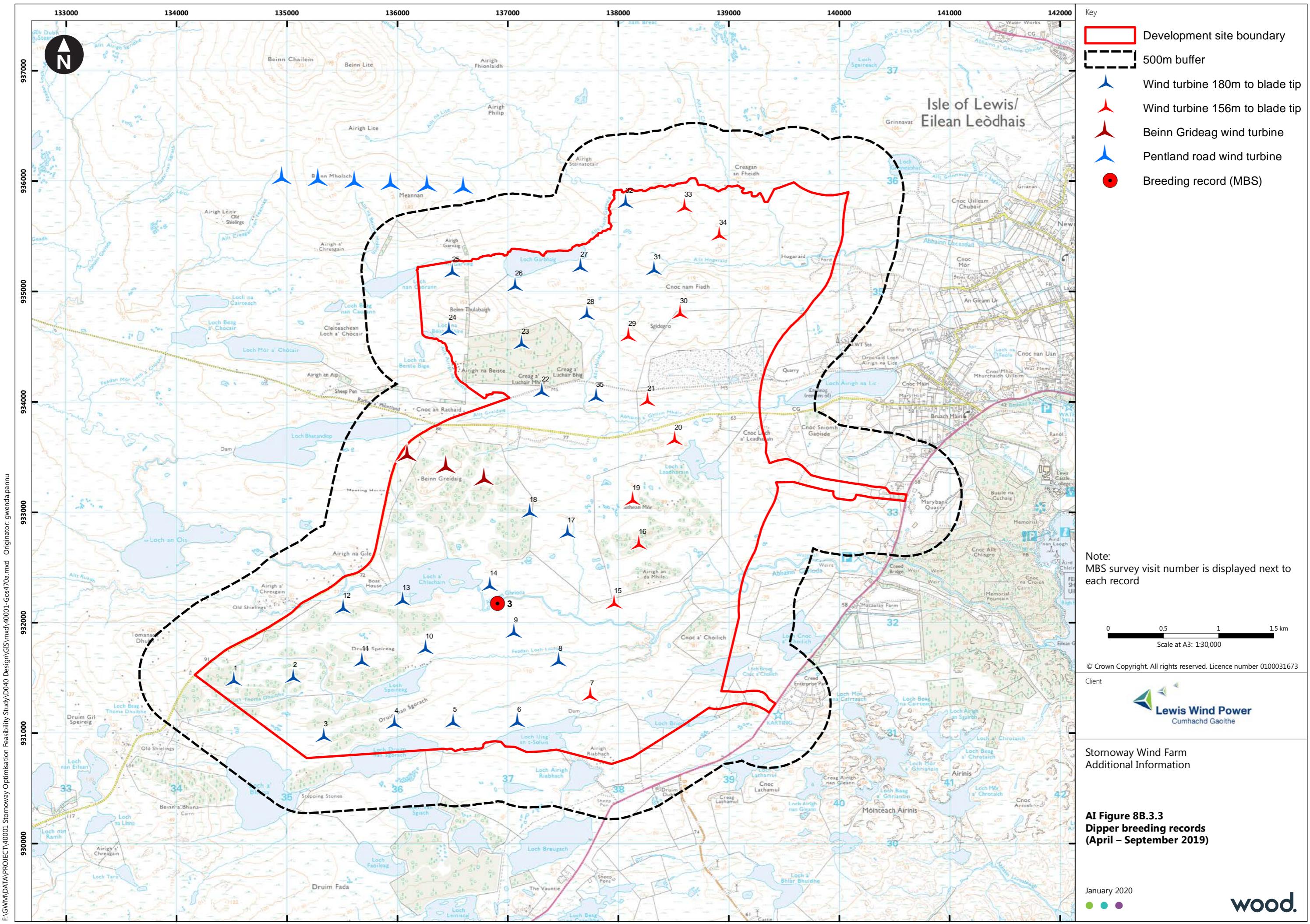


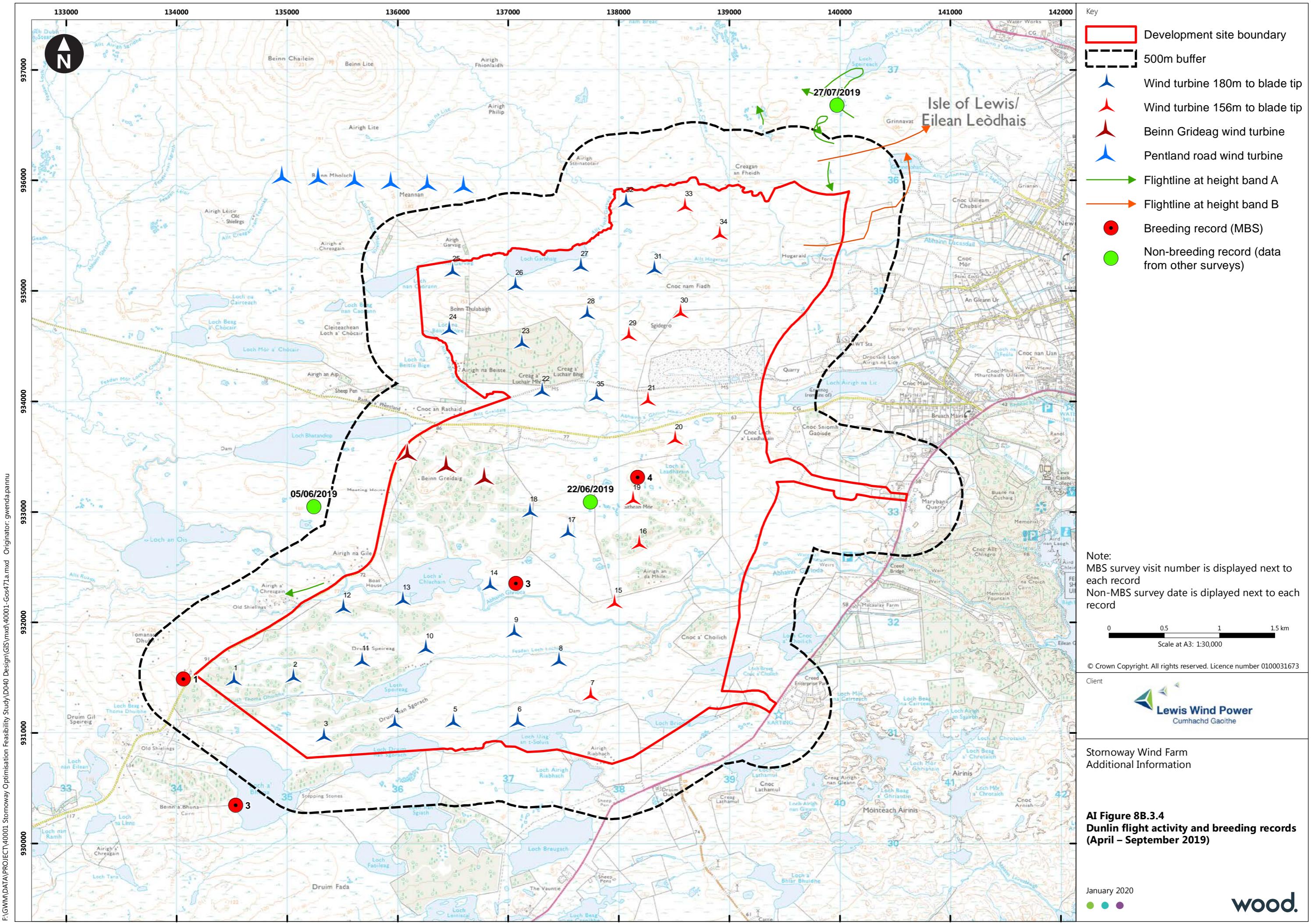


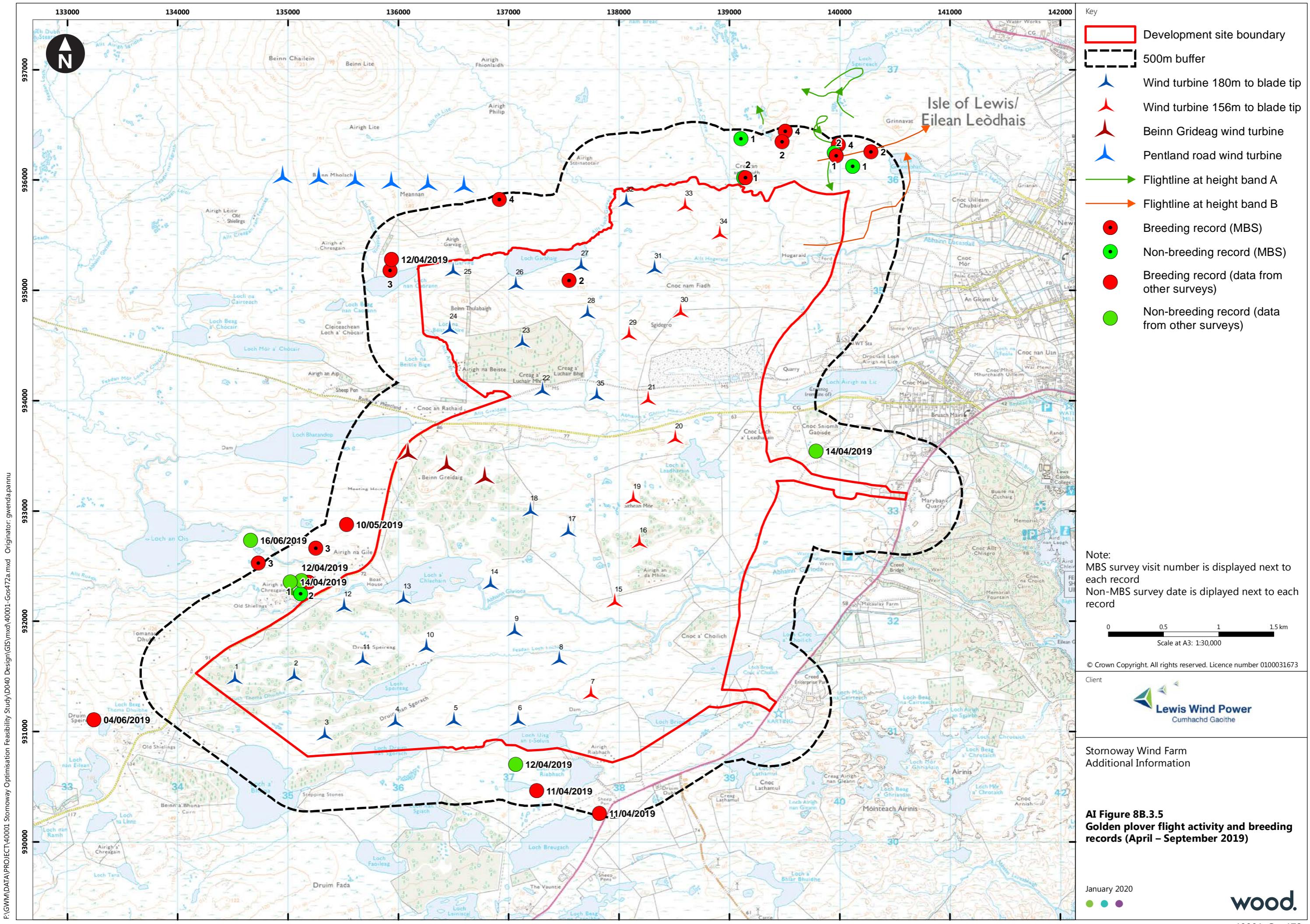


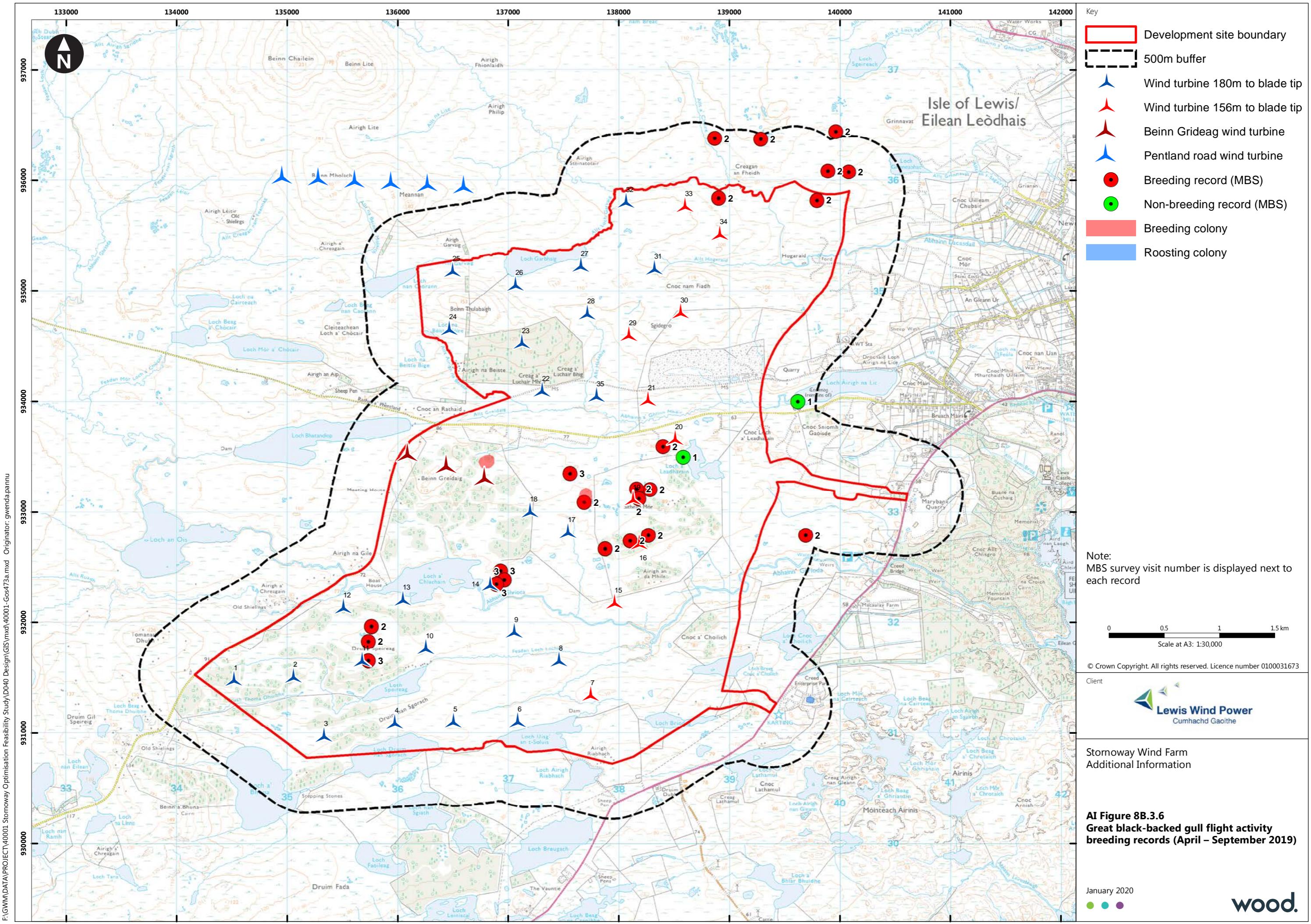


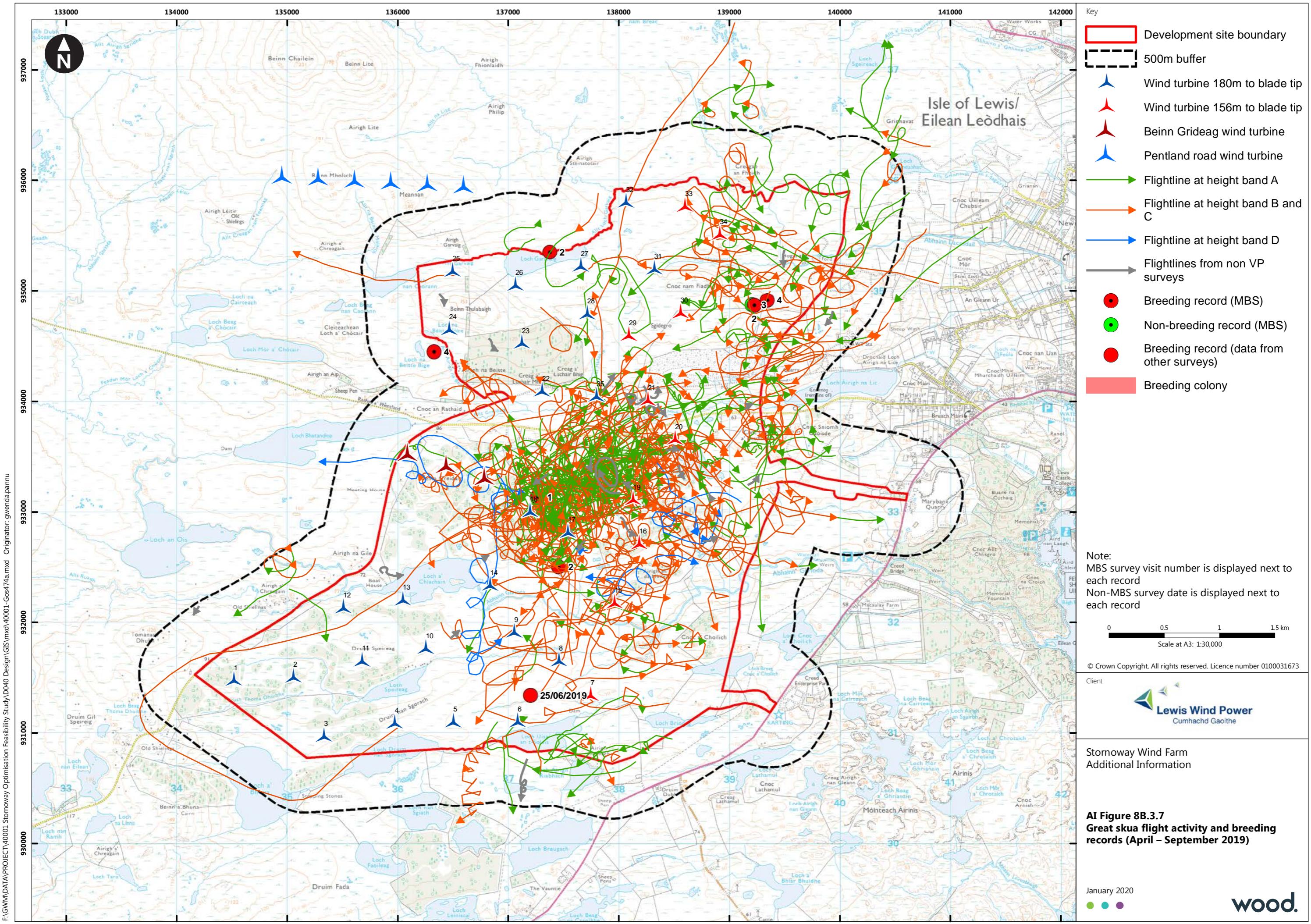


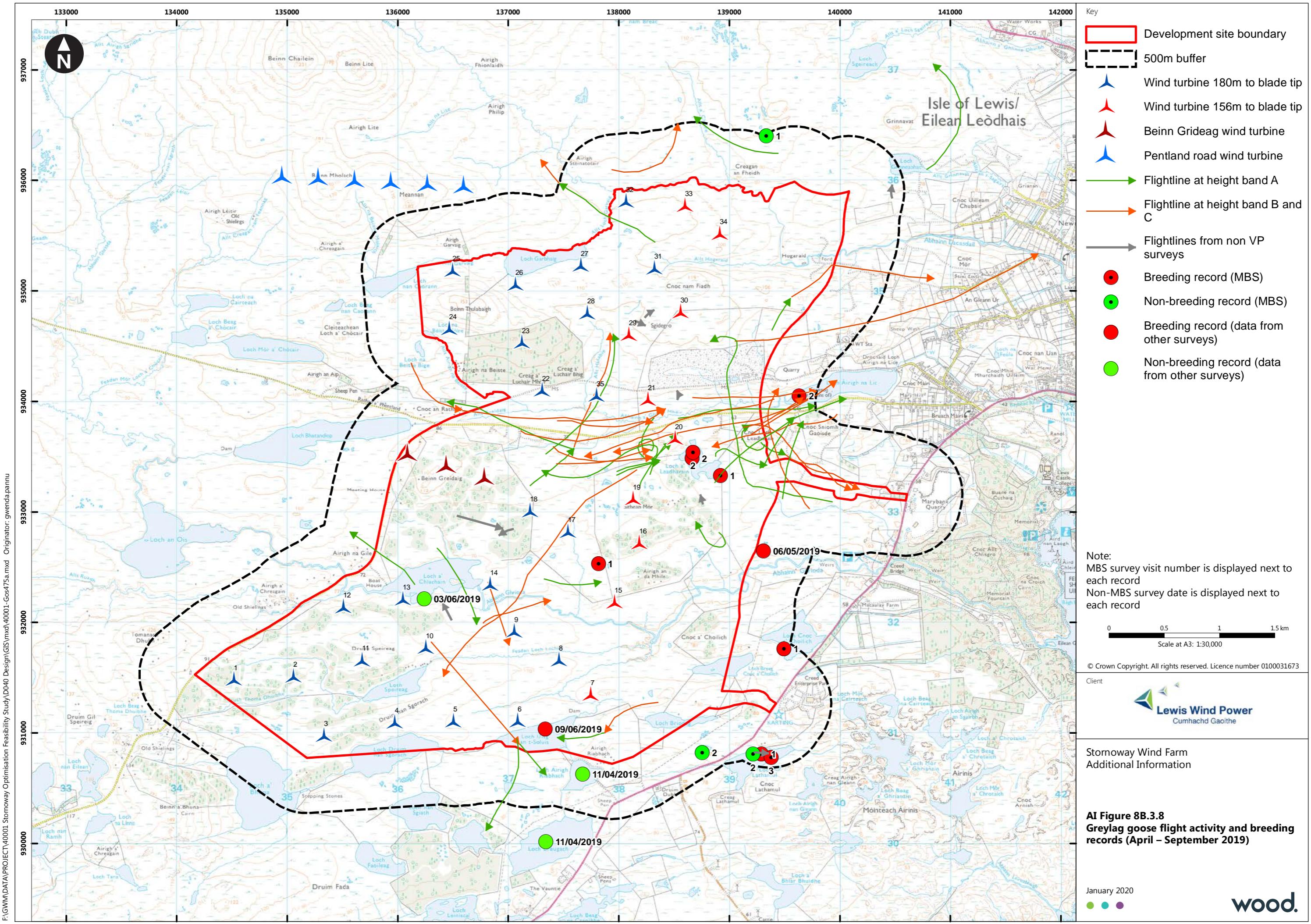


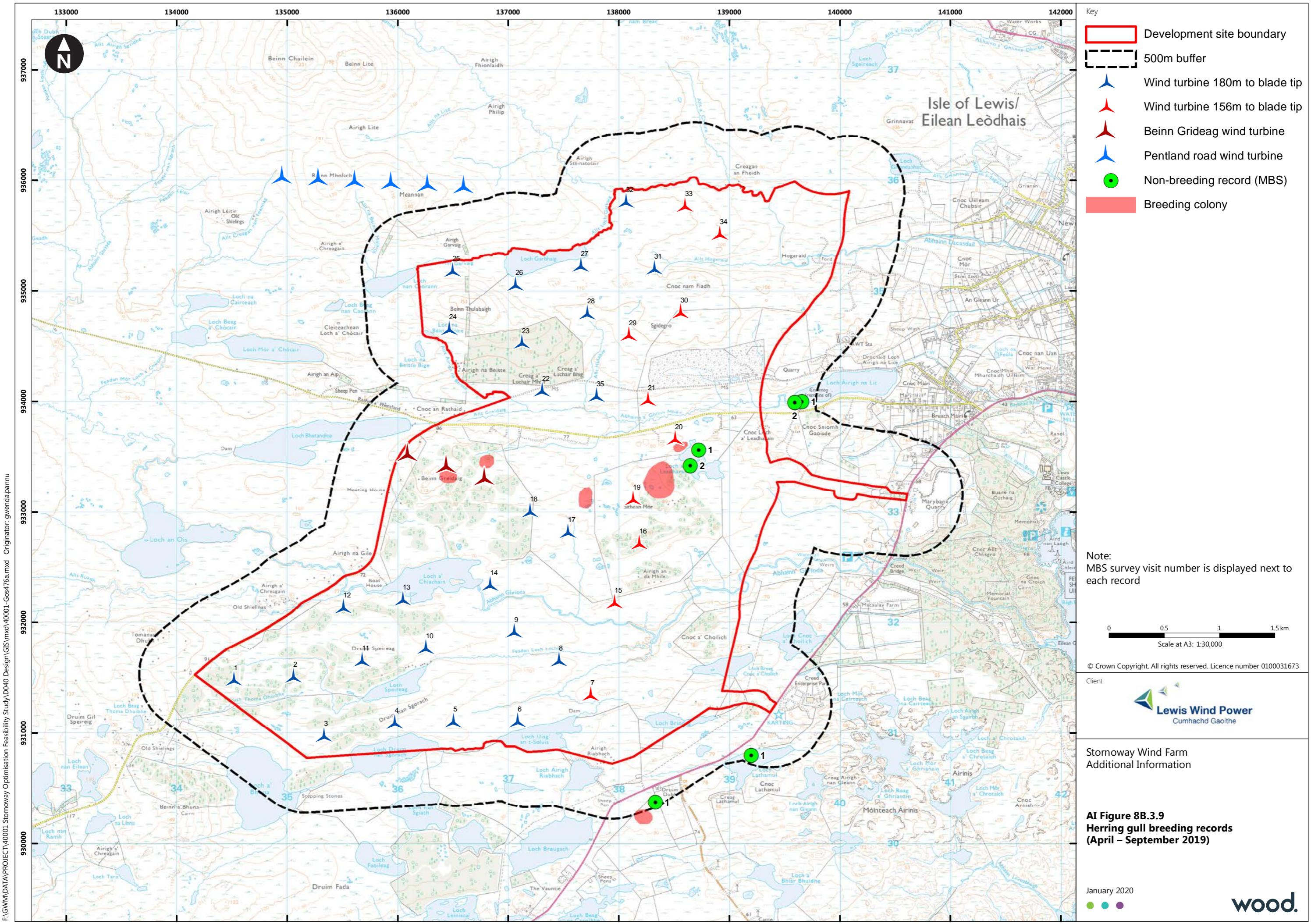


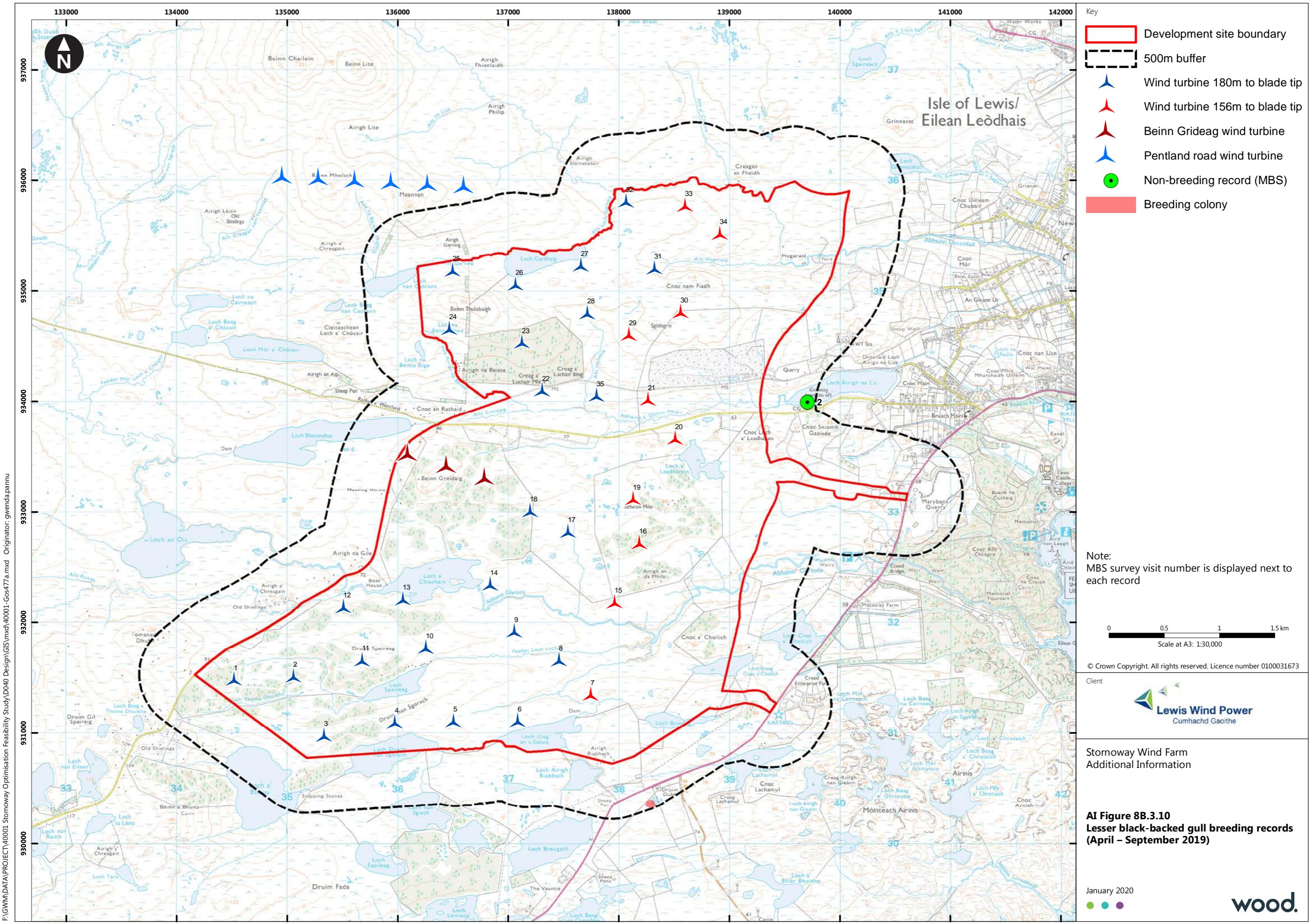


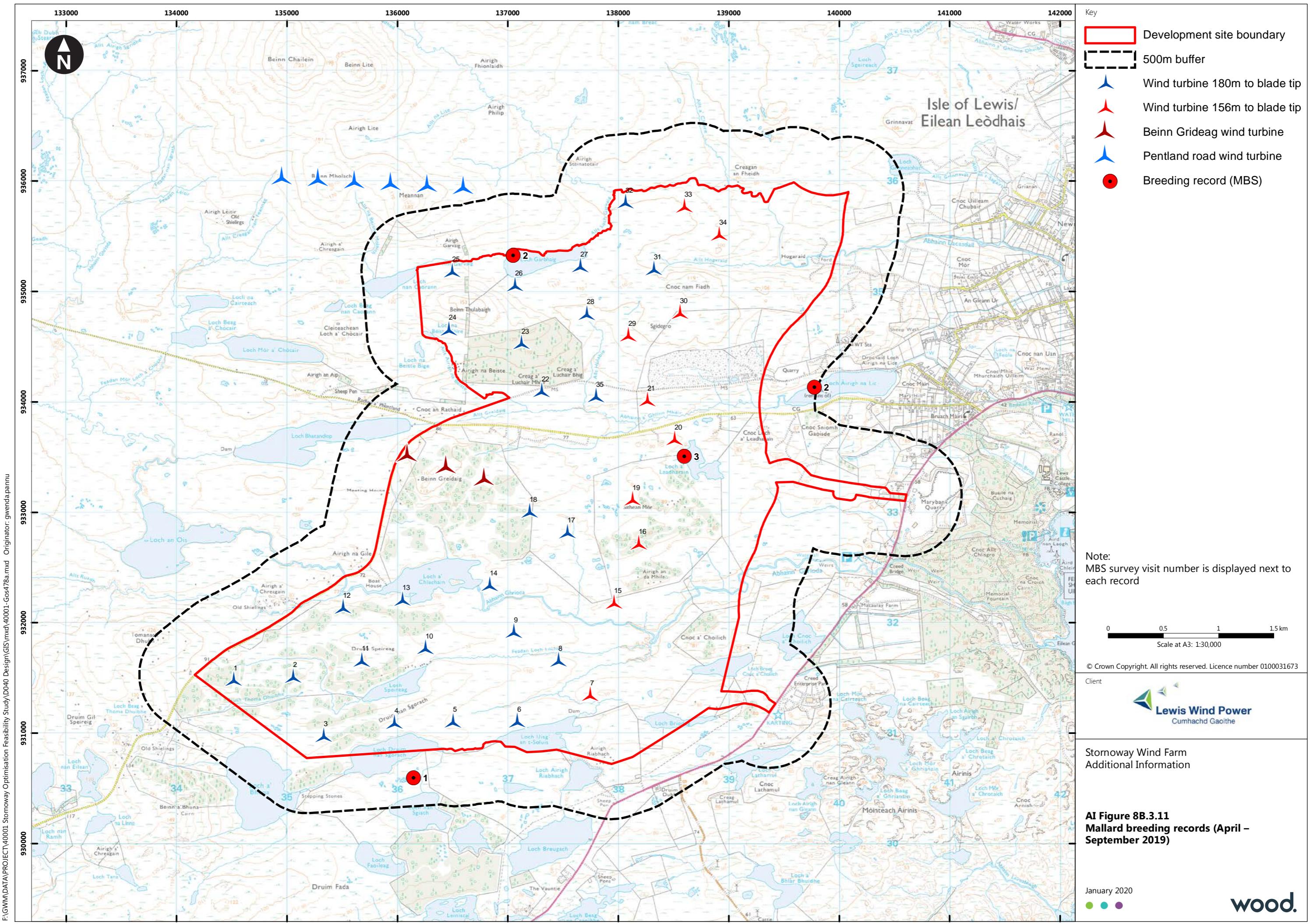


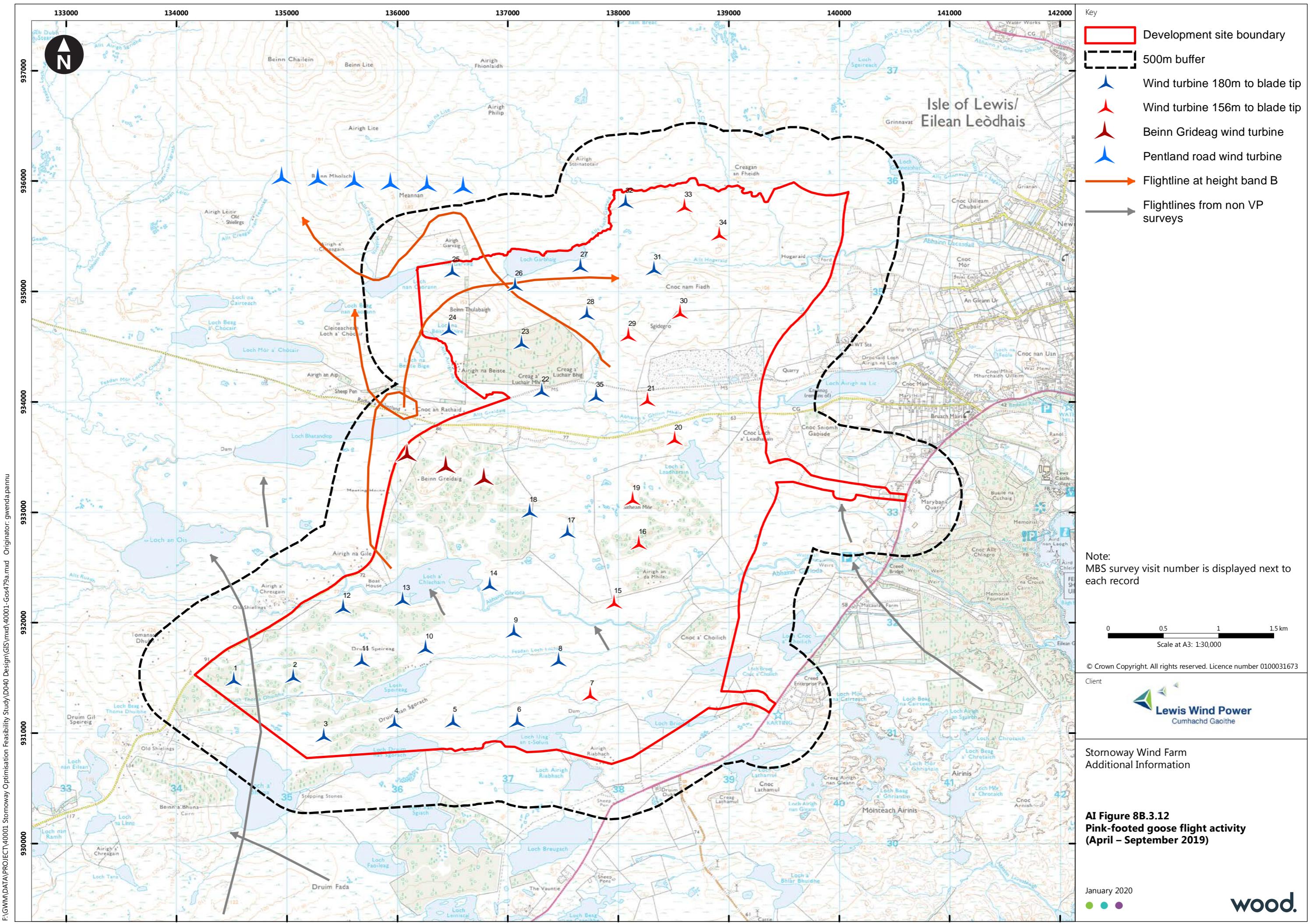


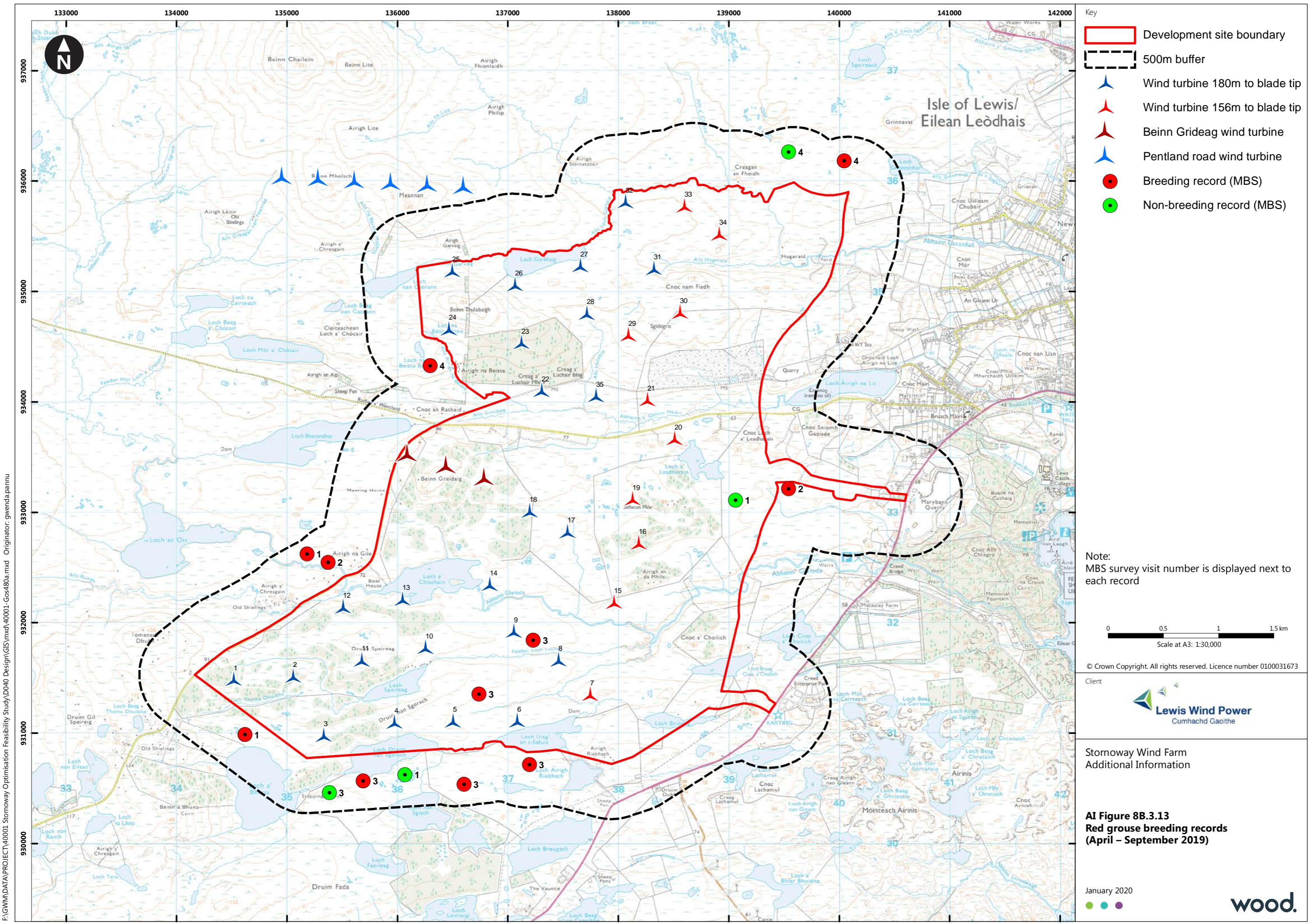


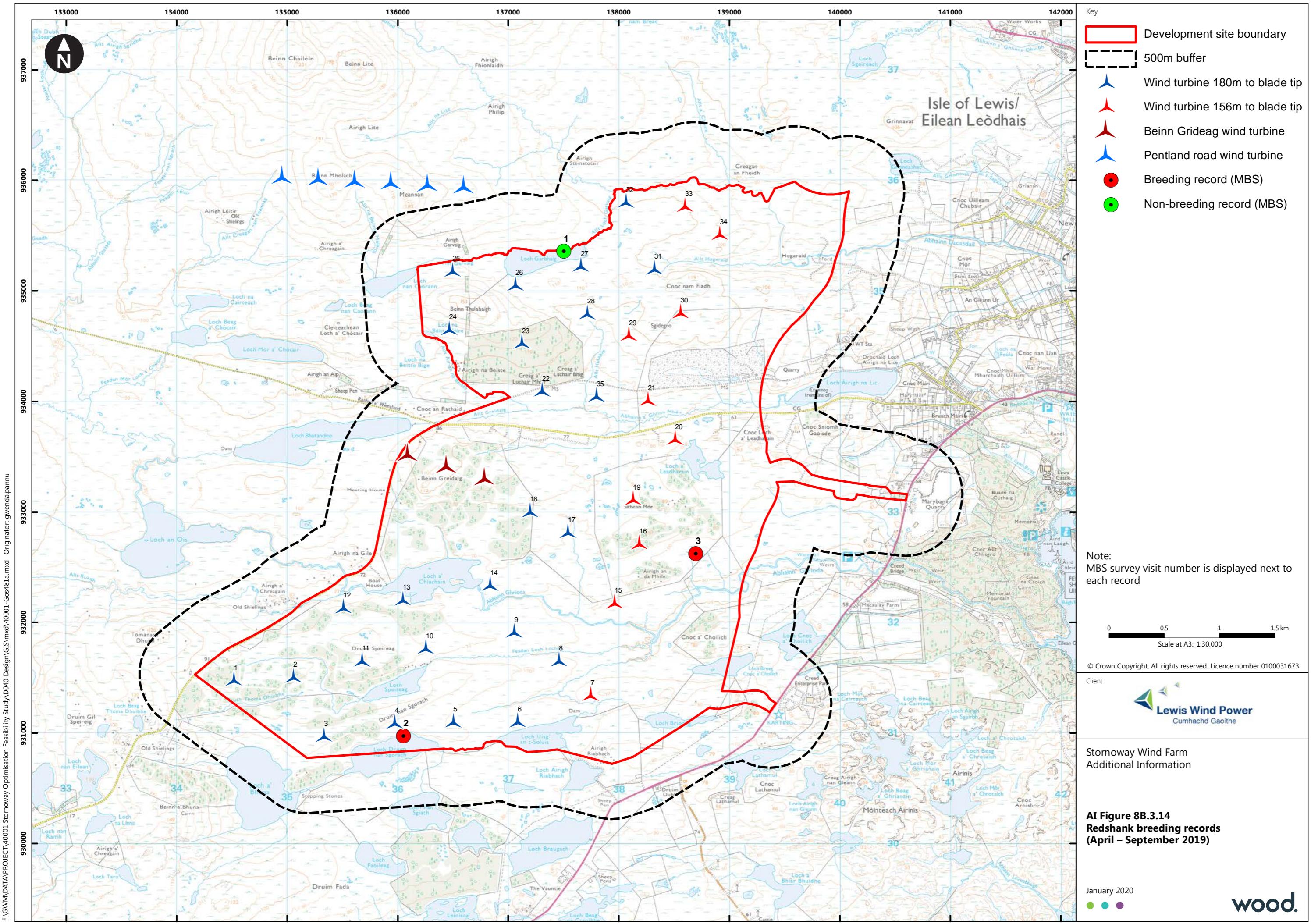


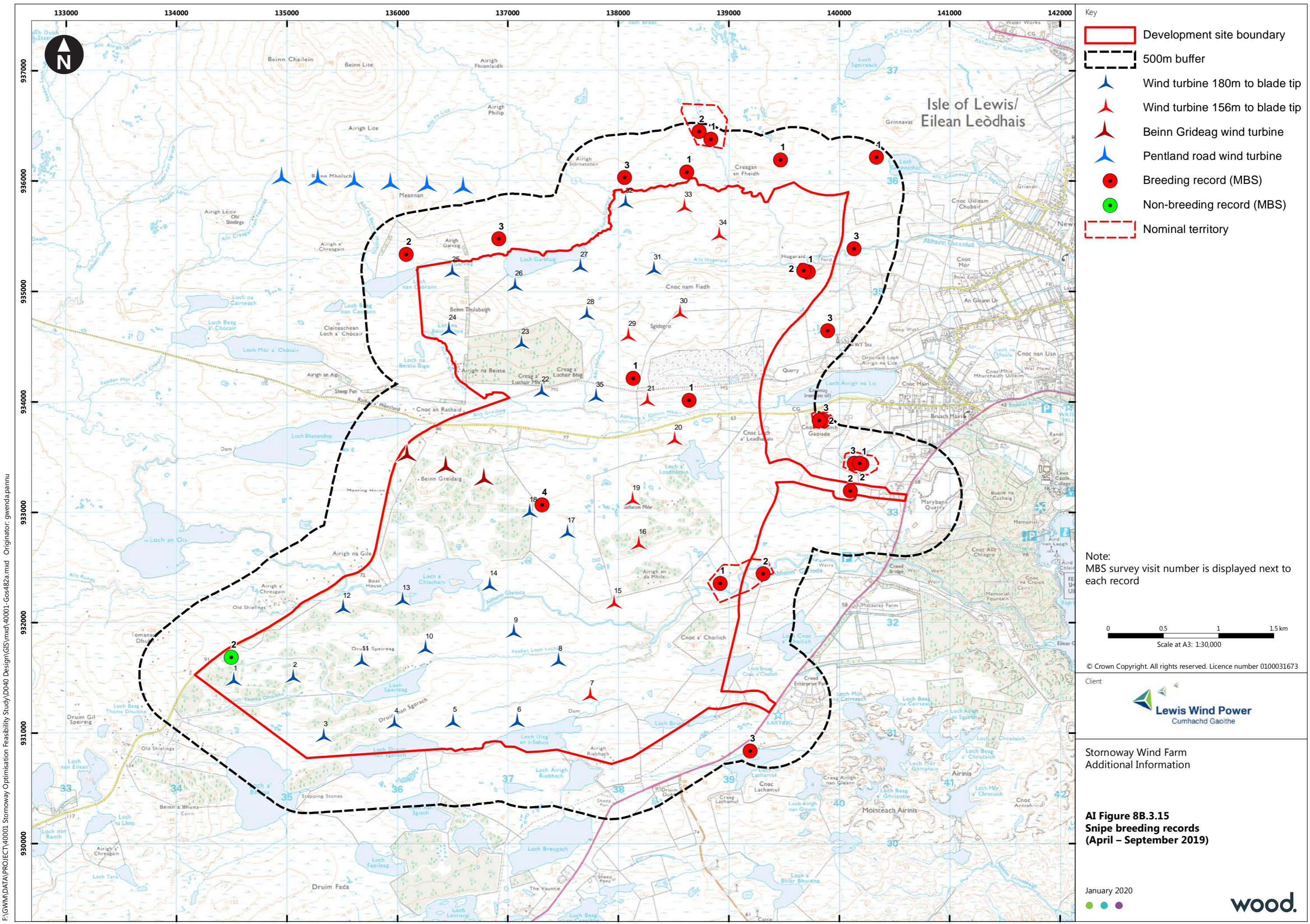


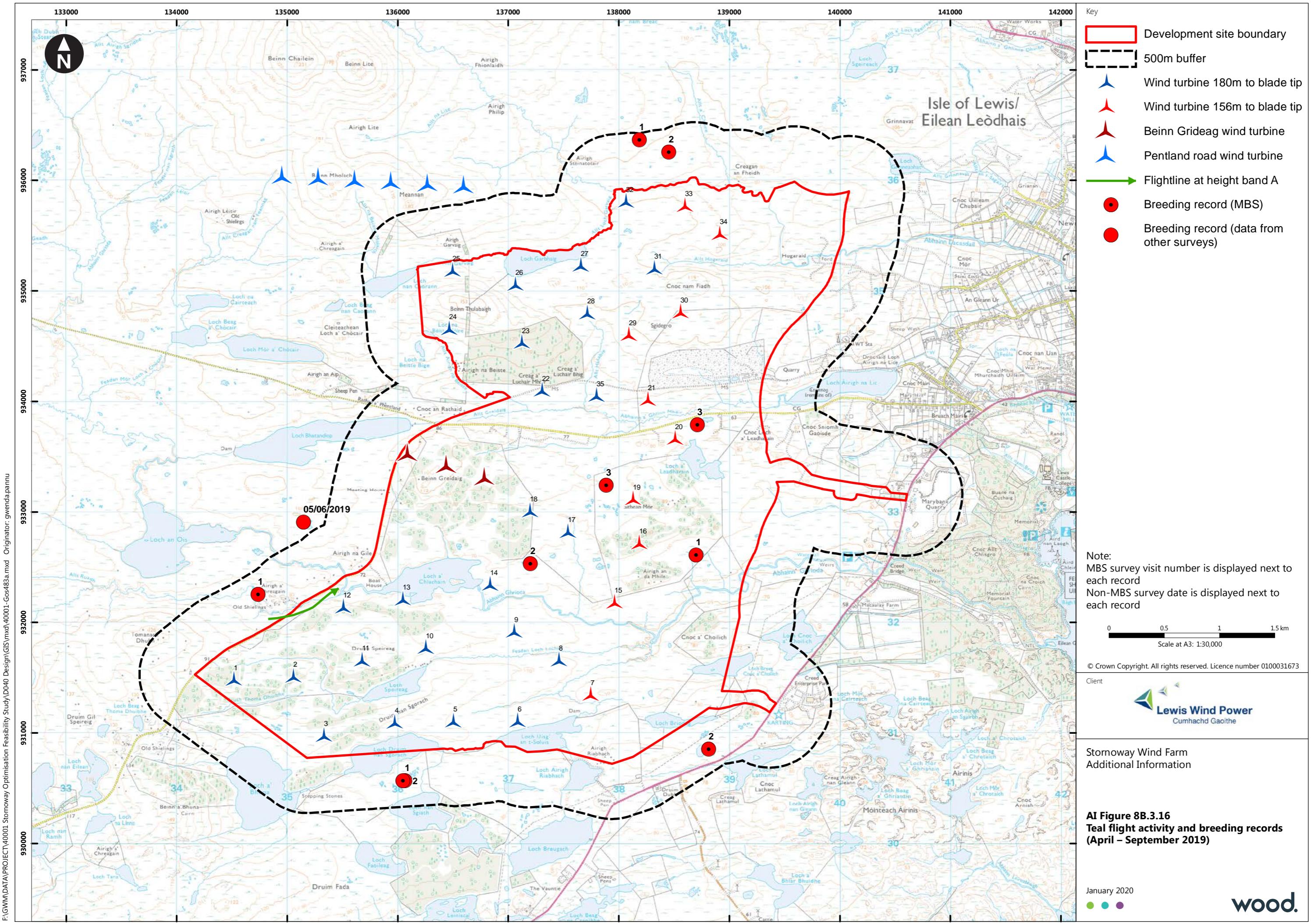


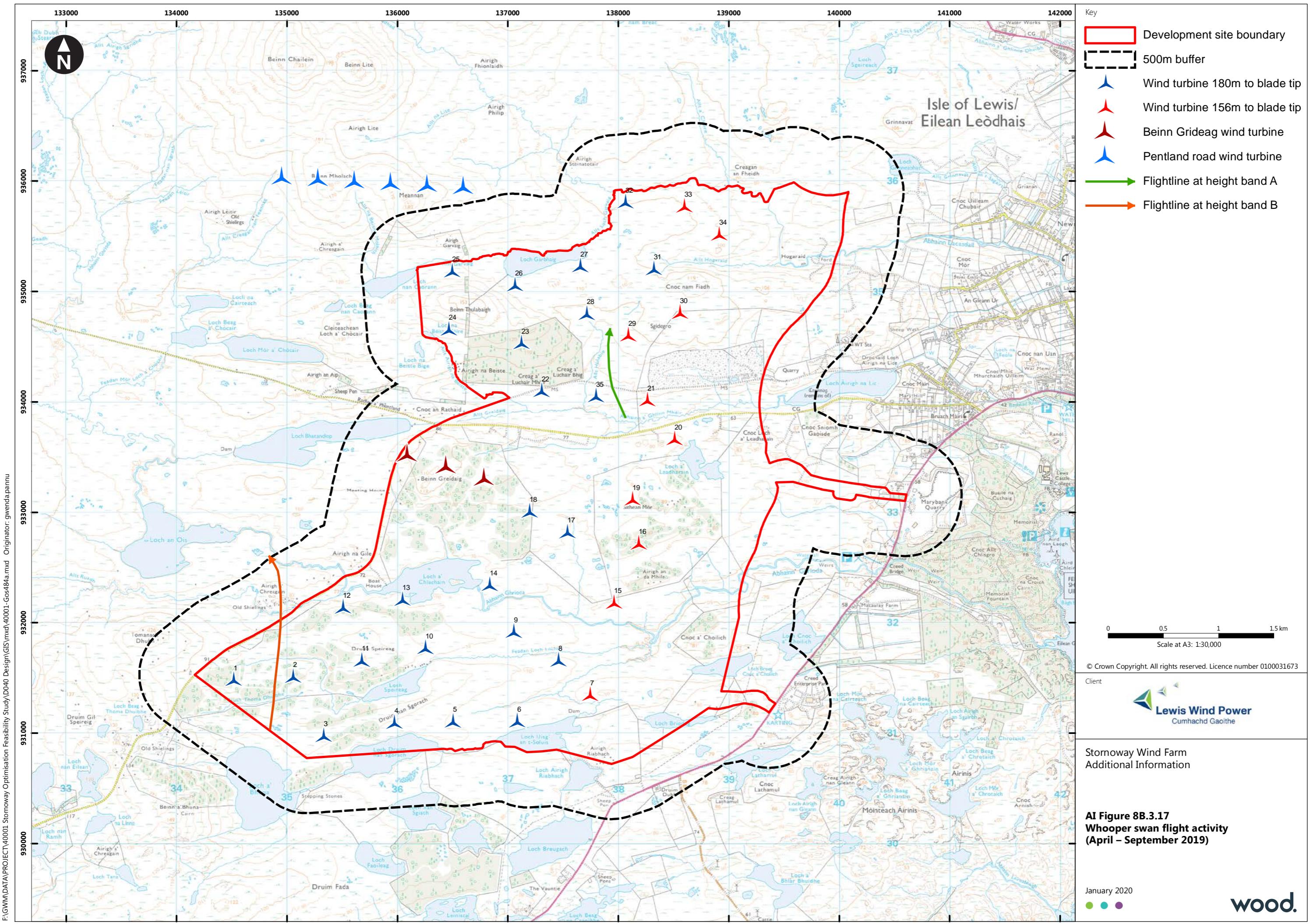












Annex B

Scientific Names

Species have been arranged alphabetically as opposed to taxonomically for convenience.

Species	Scientific name
Black-throated diver	<i>Gavia arctica</i>
Common sandpiper	<i>Actitis hypoleucos</i>
Common tern	<i>Sterna hirundo</i>
Dipper	<i>Cinclus cinclus</i>
Dunlin	<i>Calidris alpina</i>
Golden eagle	<i>Aquila chrysaetos</i>
Golden plover	<i>Pluvialis apricaria</i>
Great black-backed gull	<i>Larus marinus</i>
Great skua	<i>Stercorarius skua</i>
Greenshank	<i>Tringa nebularia</i>
Greylag goose	<i>Anser anser</i>
Hen harrier	<i>Circus cyaneus</i>
Herring gull	<i>Larus argentatus</i>
Lesser black-backed gull	<i>Larus fuscus</i>
Mallard	<i>Anas platyrhynchos</i>
Merlin	<i>Falco columbarius</i>
Pink-footed goose	<i>Anser brachyrhynchus</i>
Red grouse	<i>Lagopus lagopus scotica</i>
Redshank	<i>Tringa totanus</i>
Red-throated diver	<i>Gavia stellata</i>
Short-eared owl	<i>Asio flammeus</i>
Snipe	<i>Gallinago gallinago</i>
Teal	<i>Anas crecca</i>
Whimbrel	<i>Numenius phaeopus</i>
White tailed eagle	<i>Haliaeetus albicilla</i>
Whooper swan*	<i>Cygnus cygnus</i>

Annex C

Survey Effort

C.1 VP Survey Effort

Date	VP	Surveyor	Start	Finish	Duration	Weather summary
12/04/2019	8	PR	09:30	12:30	03:00	Dry, Wind F2-4 S Cloud Cover 3-4/8 Visibility >3km, Temp 8-11c
12/04/2019	2	NR	09:55	12:55	03:00	Dry, Wind F3-6 SE Cloud Cover 4-6/8 Visibility >3km, Temp 6-10c
12/04/2019	2	PR	15:20	18:20	03:00	Dry, Wind F4 S Cloud Cover 3/8 Visibility >3km, Temp 7-8c
12/04/2019	5	NR	15:45	18:45	03:00	Dry, Wind F5 SE Cloud Cover 1-7/8 Visibility >3km, Temp 8-11c
14/04/2019	5	PR	08:20	11:20	03:00	Dry, Wind F5-6 SE Cloud Cover 4-7/8 Visibility >3km, Temp 3-4c
14/04/2019	4	NR	08:25	11:25	03:00	Dry, Wind F4-5 SE Cloud Cover 5-7/8 Visibility >3km, Temp 5-8c
14/04/2019	5	NR	12:00	15:00	03:00	Dry, Wind F4-6 SE Cloud Cover 3-8/8 Visibility >3km, Temp 9-10c
14/04/2019	4	PR	11:50	14:50	03:00	Dry, Wind F4-5 SE Cloud Cover 5-7/8 Visibility >3km, Temp 5-7c
15/04/2019	3	YB	17:40	20:40	03:00	Dry, Wind F4 SE, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded.
16/04/2019	8	YB	12:30	15:30	03:00	Showers at end, Wind F0-2 SE, Cloud Cover 8/8, Visibility 1->3km, Temp not recorded.
16/04/2019	1	YB	16:50	19:50	03:00	Light Showers, Wind F3-5 SE, Cloud Cover 8/8, Visibility >1-3km, Temp not recorded.
22/04/2019	4	ED	17:00	20:00	03:00	Dry, Wind F2 S - F2 N, Cloud Cover 2-1/8, Visibility 1-3km, Temp 21c.
24/04/2019	3	ED	14:15	17:15	03:00	Dry, Wind F4-5 E, Cloud Cover 1-0/8, Visibility 1-3km, Temp 16c.
07/05/2019	2	ED	12:35	15:35	03:00	Dry, Wind F3-4 NE, Cloud Cover 4-2/8, Visibility >3km, Temp not recorded.



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
07/05/2019	3	ED	09:00	12:00	03:00	Dr, Wind F2-3 N, Cloud Cover 4-6/8, Visibility >3km, Temp 5-10c.
08/05/2019	1	ED	09:15	12:15	03:00	Showers at start, Wind F4 E, Cloud Cover 4-7/8, Visibility >3km, Temp not recorded.
08/05/2019	1	ED	12:45	15:45	03:00	Light showers, Wind F5 E, Cloud Cover 5-7/8, Visibility >3km, Temp not recorded.
09/05/2019	8	ED	13:40	16:40	03:00	Heavy showers, Wind F2-3 NE, Cloud Cover 6-5/8, Visibility >3km, Temp not recorded.
09/05/2019	8	ED	17:10	20:10	03:00	Dry, Wind F3 NE, Cloud Cover 5-3/8, Visibility >3km, Temp not recorded.
10/05/2019	2	ED	17:30	20:30	03:00	Dry, Wind F4-3 N, Cloud Cover 4-2/8, Visibility >3km, Temp 8c.
11/05/2019	5	ED	06:30	09:30	03:00	Dry, Wind F0-2 W, Cloud Cover 3-4/8, Visibility >3km, Temp 2-8c
11/05/2019	3	ED	17:00	20:00	03:00	Dry, Wind F3-4 NW, Cloud Cover 5-3/8, Visibility >3km, Temp 11-8c.
13/05/2019	4	YB	18:30	21:30	03:00	Dry, Wind F4 S, Cloud Cover 1-6/8, Visibility >3km, Temp not recorded.
14/05/2019	2	YB	06:20	09:20	03:00	Dry, Wind F2-3 S, Cloud Cover 8-3/8, Visibility >3km, Temp not recorded.
15/05/2019	5	YB	15:25	18:25	03:00	Dry, Wind F2-4 SE, Cloud Cover 4-5/8, Visibility >3km, Temp 20c.
16/05/2019	1	YB	18:20	21:20	03:00	Drizzle at end, Wind F3-1 SW, Cloud Cover 6-8/8, Visibility >3km to 1-3km, Temp 14-10c.
17/05/2019	3	YB	07:10	10:10	03:00	Dry, Wind F2 SE, Cloud Cover 4-1/8, Visibility >3km, Temp not recorded.
02/06/2019	8	YB	19:30	22:30	03:00	Dry, Wind F3-1 SW, Cloud Cover 2-8/8, Visibility >3km to 1-3km, Temp not recorded.
03/06/2019	5	CB	18:50	21:50	03:00	Showers, Wind F4-5 SW, Cloud Cover 8/8, Visibility >3km, Temp 10-9c.



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
05/06/2019	1	YB	06:20	09:20	03:00	Dry, Wind F3-4 NE, Cloud Cover 6-7/8, Visibility >3km, Temp not recorded.
06/06/2019	4	FM	16:30	19:30	03:00	Dry-Drizzle Wind F4 NE, Cloud Cover 8/8, Visibility >3km, Temp 9-8c. Incomplete
09/06/2019	8	CB	07:50	10:50	03:00	Dry, Wind F3 NE, Cloud Cover 3-5/8, Visibility >3km, Temp 10-12c.
10/06/2019	4	FM	08:05	11:05	03:00	Dry, Wind F1-2 NW, Cloud Cover 4-7/8, Visibility >3km, Temp 11c.
11/06/2019	2	VF	10:00	13:00	03:00	Dry, Wind F5-6 N, Cloud Cover 6-8/8, Visibility >3km, Temp 10-11c.
12/06/2019	3	VF	11:00	14:00	03:00	Dry, Wind F6 N, Cloud Cover 8/8, Visibility >3km, Temp 7c.
13/06/2019	4	VF	14:00	17:00	03:00	Dry, Wind F5-6 NE, Cloud Cover 7-8/8, Visibility >3km, Temp not recorded.
14/06/2019	2	VF	09:00	12:00	03:00	Drizzle at start, Wind F2-4 SW, Cloud Cover 8-6/8, Visibility 1-3km, Temp 8c.
17/06/2019	4	MC	15:00	18:00	03:00	Showers, Wind F4-2 NW, Cloud Cover 6-7/8, Visibility >3km, Temp 13-16c.
18/06/2019	14	MC	17:15	20:15	03:00	Heavy showers, Wind F5 SW, Cloud Cover 6-8/8, Visibility >3km, Temp 16-12c.
18/06/2019	14	MC	12:30	15:30	03:00	Occ. showers, Wind F5 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 15-16c.
19/06/2019	3	MC	11:15	14:15	03:00	Heavy showers, Wind F3 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 13-11c.
19/06/2019	4	MC	05:00	08:00	03:00	Dry, Wind F3-4 SE, Cloud Cover 4-7/8, Visibility >3km, Temp 11c.
20/06/2019	14	MC	12:30	15:30	03:00	Heavy showers at end, Wind F6 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 12-11c.
21/06/2019	8	MC	12:00	15:00	03:00	Occ showers, Wind F4-5 NW, Cloud Cover 3-6/8, Visibility >3km, Temp 8-13c.

Date	VP	Surveyor	Start	Finish	Duration	Weather summary
21/06/2019	14	MC	05:30	08:30	03:00	Dry, Wind F2-4 NW, Cloud Cover 7-4/8, Visibility >3km, Temp 8-9c.
22/06/2019	3	VF	08:30	11:30	03:00	Dry, Wind F3 W, Cloud Cover 6-5/8, Visibility >3km, Temp 9-12c.
22/06/2019	3	MC	04:45	07:45	03:00	Dry, Wind F1-2 SW, Cloud Cover 7/8, Visibility >3km, Temp 9-10c.
22/06/2019	3	MC	19:00	22:00	03:00	Dry, Wind F2-0 SW, Cloud Cover 4-2/8, Visibility >3km, Temp 14-10c.
23/06/2019	2	MC	05:00	08:00	03:00	Dry, Wind F1 NE, Cloud Cover 7-4/8, Visibility >3km, Temp 10c.
23/06/2019	2	MC	19:00	22:00	03:00	Dry, Wind F4 NE, Cloud Cover 7-8/8, Visibility >3km, Temp 12-10c.
23/06/2019	5	MC	12:00	15:00	03:00	Dry, Wind F3 NE, Cloud Cover 2/8, Visibility >3km, Temp 14-5c.
24/06/2019	8	VF	19:00	22:00	03:00	Drizzle, Wind F5-4 SE, Cloud Cover 8/8, Visibility 1-3km, 10c.
24/06/2019	5	MC	12:15	15:15	03:00	Showers, Wind NE F6, Cloud Cover 7-8/8, Visibility >3km, Temp 13-12c.
25/06/2019	5	VF	07:00	10:00	03:00	Dry, Wind F3-4 E, Cloud Cover 8-6/8, Visibility >3km, 10-12c.
30/06/2019	14	FM	15:45	18:45	03:00	Light-heavy showers, Wind F3-4 W, Cloud Cover 8/8, Visibility >3km, Temp 11c
02/07/2019	8	FM	04:30	07:30	03:00	Drizzle-showers, Wind F3 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 10c
02/07/2019	14	FM	19:30	22:30	03:00	Drizzle, Wind F1-3 W, Cloud Cover 6-7/8, Visibility >3km, Temp 10-9c
03/07/2019	14	MC	14:15	17:15	03:00	Drizzle, Wind F5-6 SW, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 14-13c
04/07/2019	14	FM	04:30	07:30	03:00	Showers, Wind F3-4 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 12-13c



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
04/07/2019	14	FM	04:30	07:30	03:00	Showers, Wind F3-4 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 12-13c
06/07/2019	8	MC	11:45	14:45	03:00	Dry, Wind F3 NW, Cloud Cover 6-7/8, Visibility >3km, Temp 12-13c
08/07/2019	2	VF	13:00	16:00	03:00	Dry, Wind F3 SW, Cloud Cover 3-4/8, Visibility >3km, Temp 17c
09/07/2019	2	VF	18:00	21:00	03:00	Drizzle, Wind F2 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 14c
09/07/2019	5	VF	12:00	15:00	03:00	Drizzle, Wind F1 W ,Cloud Cover 8/8, Visibility 1-3km, Temp 15c
10/07/2019	4	VF	06:00	09:00	03:00	Showers, Wind F0-1 W, Cloud Cover 8/8, Visibility >3km, Temp 14c
10/07/2019	3	VF	10:00	13:00	03:00	Showers, Wind F1-2 W, Cloud Cover Not recorded, Visibility Not recorded, Temp Not recorded
10/07/2019	14	ED	16:00	19:00	03:00	Showers, Wind SW (No speed recorded), Cloud Cover 8/8, Visibility >3km, Temp 16-17c
11/07/2019	4	VF	18:00	21:00	03:00	Dry, Wind F3 NW, Cloud Cover 5-8/8, Visibility >3km, Temp 14-15c
14/07/2019	4	ED	10:20	13:20	03:00	Dry, Wind F1-2 NW-E, Cloud Cover 8/8, Visibility >3km, Temp 15-16c
14/07/2019	3	VF	18:00	21:00	03:00	Dry, Wind F1-2 SW, Cloud Cover 3-6/8, Visibility >3km, Temp 18-15c
15/07/2019	14	PR	12:00	15:00	03:00	Dry, Wind F3-4 E, Cloud Cover 1-3/8, Visibility >3km, Temp 18c
22/07/2019	8	YB	08:30	11:30	03:00	Showers, Wind F2-3 S-SW, Cloud Cover 8/8, Visibility 1-3km to >3km , Temp not recorded
22/07/2019	8	FM	19:05	22:05	03:00	Showers, Wind F3-4 S, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 17-19c.
24/07/2019	5	YB	16:15	19:15	03:00	Dry, Wind F1-3 SW, Cloud Cover 7-8/8, Visibility 1-3km to >3km, Temp not recorded



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
25/07/2019	5	FM	09:05	12:05	03:00	Dry, Wind F2-3 E ,Cloud Cover 5-6/8, Visibility >3km, Temp 18-21c
27/07/2019	14	FM	14:10	17:10	03:00	Drizzle, Wind F2-3 SW ,Cloud Cover 8/8, Visibility >3km, Temp 17-16c
28/07/2019	14	VF	13:00	16:00	03:00	Dry, Wind F4 E, Cloud Cover 2-3/8, Visibility >3km, Temp 21c
15/08/2019	4	YB	12:05	15:05	03:00	Dry, Wind F4 W, Cloud Cover 3-6/8, Visibility >3km, Temp not recorded
13/08/2019	5	YB	12:15	15:15	03:00	Showers, Wind F3-4 W, Cloud Cover 5-8/8, Visibility >3km, Temp not recorded
13/08/2019	3	YB	16:20	19:20	03:00	Showers, Wind F3-4 W, Cloud Cover 7-4/8, Visibility >3km, Temp not recorded
14/08/2019	8	YB	06:20	09:20	03:00	Dry, Wind F1 S, Cloud Cover 4-8/8, Visibility >3km, Temp not recorded
14/08/2019	2	YB	10:35	13:35	03:00	Dry, Wind F3 SW, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
15/08/2019	14	YB	06:45	09:45	03:00	Dry, Wind F4 NW, Cloud Cover 2-7/8, Visibility >3km, Temp not recorded
16/08/2019	3	YB	14:20	17:20	03:00	Dry, Wind F4 SW, Cloud Cover 6-7/8, Visibility >3km, Temp not recorded
16/08/2019	5	YB	18:10	21:10	03:00	Dry, Wind F4-5 S, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
05/08/2019	2	YB	09:10	12:10	03:00	Dry, Wind F3 SE, Cloud Cover 3-6/8, Visibility 1-3km to >3km, Temp ?
17/08/2019	8	YB	11:30	14:30	03:00	Dry, Wind F4-6 S, Cloud Cover 4-8/8, Visibility >3km, Temp not recorded
21/08/2019	4	ED	17:20	20:20	03:00	Dry, Wind F3-4 SW, Cloud Cover 3-7/8, Visibility >3km, Temp 12-13c
22/08/2019	5	ED	09:25	12:25	03:00	Showers, Wind F4-5 S, Cloud Cover 7-8/8, Visibility >3km, Temp 14c



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
22/08/2019	2	ED	16:30	19:30	03:00	Dry, Wind F5-6 W, Cloud Cover 5-7/8, Visibility >3km, Temp 14-13c
23/08/2019	8	ED	14:40	17:40	03:00	Showers, Wind F5 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 15c
24/08/2019	3	ED	08:55	11:55	03:00	Showers, Wind F4-5 S, Cloud Cover 7-8/8, Visibility >3km, Temp 14c
24/08/2019	14	ED	17:10	20:10	03:00	Dry, Wind F4-3 S, Cloud Cover 8/8, Visibility >3km, Temp 15-14c
25/08/2019	14	ED	10:10	13:10	03:00	Dry, Wind F2 E, Cloud Cover 7-8/8, Visibility >3km, Temp 15-16c
26/08/2019	4	ED	09:10	12:10	03:00	Dry, Wind F5 S, Cloud Cover 7-8/8, Visibility >3km, Temp 15c
17/08/2019	2	YB	07:30	10:30	03:00	Dry, Wind F4 S, Cloud Cover 0-3/8, Visibility >3km, Temp not recorded
09/09/2019	2	YB	13:15	16:15	03:00	Light showers, Wind F2-3 NW, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
12/09/2019	2	YB	16:50	19:50	03:00	Heavy showers, Wind F4-5 W, Cloud Cover 3-6/8, Visibility >3km, 14c
13/09/2019	2	YB	06:50	09:50	03:00	Heavy showers, Wind F3-4 NW, Cloud Cover 4-7/8, Visibility 1-3km, Temp not recorded
08/09/2019	3	YB	17:10	20:20	03:00	Dry, Wind F4 S, Cloud Cover 8/8, Visibility >3km, Temp not recorded
11/09/2019	3	YB	07:50	10:50	03:00	Dry, Wind F3-4 SW, Cloud Cover 3-6/8, Visibility >3km, Temp not recorded
12/09/2019	3	YB	13:50	16:50	03:00	Dry, Wind F4-5 W, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
09/09/2019	4	YB	17:00	20:00	03:00	Dry, Wind F3 NW, Cloud Cover 6-7/8, Visibility >3km, Temp not recorded
11/09/2019	4	YB	13:20	16:20	03:00	Dry, Wind F4 SW, Cloud Cover 6-7/8, Visibility >3km, Temp not recorded



Date	VP	Surveyor	Start	Finish	Duration	Weather summary
13/09/2019	4	YB	10:20	13:20	03:00	Light showers, Wind F4-5 SW, Cloud Cover 4-8/8, Visibility >3km, Temp not recorded
13/09/2019	5	ED	14:00	17:00	03:00	Dry, Wind F5 W, Cloud Cover 4-6/8, Visibility >3km, 14c
15/09/2019	5	ED	10:10	13:10	03:00	Light showers, Wind F4 W, Cloud Cover 6-8/8, Visibility >3km, 12c
11/09/2019	5	YB	16:50	19:50	03:00	Light showers, Wind F3-4 SW, Cloud Cover 7-8/8, Visibility >3km, temp not recorded
14/09/2019	8	YB	16:40	19:40	03:00	Dry, Wind F5 W, Cloud Cover 8/8, Visibility >3km, temp not recorded
10/09/2019	8	YB	11:30	14:30	03:00	Dry, Wind F4-5 SE, Cloud Cover 6-8/8, Visibility >3km, temp not recorded
13/09/2019	8	ED	07:00	10:00	03:00	Heavy showers, Wind F3-4 W, Cloud Cover 3/8, Visibility >3km, temp not recorded
12/09/2019	14	YB	10:15	13:15	03:00	Light showers, Wind F4 W, Cloud Cover 4-6/8, Visibility >3km, temp not recorded
14/09/2019	14	ED	16:35	19:35	03:00	Light showers, Wind F5-6 W, Cloud Cover 8/8, Visibility >3km, 15c
10/09/2019	14	YB	07:10	10:10	03:00	Dry, Wind F2-4 SE, Cloud Cover 6-8/8, Visibility >3km, 15c

C.2 Breeding Bird Survey Effort

Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
09/04/2019	Raptors	1	PR	17:45	19:45	02:00	Dry, Wind F1 E Cloud Cover 2/8 Visibility >3km, Temp 7-11c
09/04/2019	Raptors	1	NR	17:45	19:45	02:00	Dry, Wind F2-3 E Cloud Cover 1-2/8 Visibility >3km, Temp 7-10c
10/04/2019	Raptors	1	PR	08:30	16:30	08:00	Dry, Wind F2 SW Cloud Cover 7/8 Visibility >3km, Temp 5-7c
10/04/2019	Raptors	1	NR	08:30	16:30	08:00	Dry, Wind F1-3 NW Cloud Cover 5-7/8 Visibility >3km, Temp 5-7c
11/04/2019	Raptors	1	PR	09:15	17:35	08:20	Dry, Wind F1 NW Cloud Cover 5-7/8 Visibility >3km, Temp 9-10c
11/04/2019	Raptors	1	NR	09:00	17:30	08:30	Dry, Wind F2-3 SE-NE Cloud Cover 5-7/8 Visibility >3km, Temp 9-10c
13/04/2019	Raptors	1	PR	09:00	17:45	08:45	Dry, Wind F5 S Cloud Cover 2/8 Visibility >3km, Temp 6-10c
13/04/2019	Raptors	1	NR	09:00	17:45	08:45	Dry, Wind F5 S Cloud Cover 2/8 Visibility >3km, Temp 6-10c
15/04/2019	Raptors	1	NR	12:00	17:30	05:30	Dry, Wind F4-5 SE Cloud Cover 3-6/8 Visibility >3km, Temp 9-10c
15/04/2019	Raptors	1	PR	08:00	18:00	10:00	Dry, Wind F5 SE Cloud Cover 2-3/8 Visibility >3km, Temp 5-9c
17/04/2019	MBBS	Round 1	YB	09:15	14:40	05:25	Dry, Wind F1-3 S-SE, Cloud Cover 8-4/8, Visibility >3km, Temp not recorded.
18/04/2019	MBBS	Round 1	YB	08:50	13:40	04:50	Dry, Wind F1-3 SE, Cloud Cover 8-0/8, Visibility >3km, Temp 11-12c.
19/04/2019	MBBS	Round 1	YB	09:05	14:40	05:35	Dry, Wind F1-3 SW-S, Cloud Cover 4-0/8, Visibility >3km, Temp 11-16c.



Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
20/04/2019	MBBS	Round 1	YB	08:45	13:25	04:40	Dry, Wind F2-4 S, Cloud Cover 6-8/8, Visibility >3km, Temp 11-14c.
22/04/2019	MBBS	Round 1	ED	08:30	13:10	04:40	Dry, Wind F3-4 S, Cloud Cover 2-1/8, Visibility >3km, Temp 13-21c.
23/04/2019	MBBS	Round 1	ED	08:30	14:50	06:20	Dry, W F2 E, Cloud Cover 3-1/8, Visibility >3km, Temp 13-19c.
24/04/2019	MBBS	Round 1	ED	08:30	12:10	03:40	Dry, Wind F3-4 E, Cloud Cover 3/8, Visibility >3km, Temp 14-16c.
04/05/2019	Raptors	2	PR	11:30	17:30	06:00	Dry, Wind F4 N, Cloud Cover 8/8 Visibility >3km, Temp 9c
05/05/2019	Raptors	2	PR	08:50	18:00	09:10	Heavy showers, Wind F4 NW Cloud Cover 7-8/8 Visibility 1-3km/>3km, Temp 7-9c
06/05/2019	Raptors	2	PR	09:15	20:00	10:45	Heavy showers, Wind F2-4 NE Cloud Cover 3-7/8 Visibility >3km, Temp 8-10c
07/05/2019	Raptors	2	PR	09:30	21:00	11:30	Dry, Wind F3-4 NE Cloud Cover 3-6/8 Visibility >3km, Temp 6-9c
08/05/2019	Raptors	2	PR	09:00	18:00	09:00	Heavy showers, Wind F5 NE Cloud Cover 6-8/8 Visibility 1-3km/ >3km, Temp 6c
09/05/2019	Raptors	2	PR	09:30	16:30	07:00	Heavy showers, Wind F3-4 NE Cloud Cover 4-8/8 Visibility 1-3km/ >3km, Temp 8-9c
10/05/2019	Raptors	2	PR	07:50	12:00	04:10	Light showers, Wind F1-4 NE Cloud Cover 3-6/8 Visibility >3km, Temp 10c
10/05/2019	MBBS	Round 2	ED	09:30	13:30	04:00	Showers,, Wind F4 N, Cloud Cover 6-7//8, Visibility >3km, Temp 8c.
11/05/2019	MBBS	Round 2	ED	10:45	14:55	04:10	Showers,, Wind F3 W, Cloud Cover 3-6//8, Visibility >3km, Temp 8-4c.
13/05/2019	MBBS	Round 2	YB	10:30	16:15	05:45	Dry, Wind F3-4 S, Cloud Cover 8-4//8, Visibility >3km, Temp 12-14c.
14/05/2019	MBBS	Round 2	YB	12:00	17:30	05:30	Dry, Wind F4-2 S, Cloud Cover 1-6//8, Visibility >3km, Temp not recorded.



Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
15/05/2019	MBBS	Round 2	YB	11:30	15:00	03:30	Dry, Wind F2-3 S, Cloud Cover 2-4/8, Visibility >3km, Temp 19c.
16/05/2019	MBBS	Round 2	YB	10:25	14:45	04:20	Occ. drizzle, Wind F0-1 S, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp not recorded.
17/05/2019	MBBS	Round 2	YB	10:40	16:00	05:20	Dry, Wind F2-1 SE, Cloud Cover 6-1/8, Visibility >3km, Temp not recorded.
18/05/2019	MBBS	Round 2	YB	08:45	14:30	05:45	Drizzle at end, Wind F3 NE, Cloud Cover 8-4/8, Visibility 1-3km to >3km, Temp 10c.
23/05/2019	Raptors	2	PR	13:00	16:30	03:30	Light showers, Wind F5 NW, Cloud Cover 8/8 Visibility 1-3km/ >3km, Temp 10c
23/05/2019	Diver	Visit 1	YB	08:30	11:10	02:40	Drizzle, Wind F5 NW, Cloud Cover 8/8, Visibility 1-3km to <1km, Temp not recorded.
24/05/2019	Raptors	2	PR	08:00	19:00	11:00	Dry, Wind F3-4 NW, Cloud Cover 6-8/8 Visibility >3km, Temp 9-12c
04/06/2019	Diver	Visit 1	CB	08:10	17:45	09:35	Not recorded
05/06/2019	Diver	Visit 1	CB	09:00	14:30	05:30	Not recorded
05/06/2019	Diver	Visit 1	YB	09:40	17:30	07:50	Not recorded
06/06/2019	Diver	Visit 1	CB	08:00	14:35	06:35	Not recorded
06/06/2019	Diver	Visit 1	YB	07:50	14:00	06:10	Not recorded
07/06/2019	MBBS	Round 3	CB	10:00	18:20	08:20	Dry, Wind F2-3 SW, Cloud Cover 4-1/8, Visibility >3km, Temp 14-17c.
07/06/2019	MBBS	Round 3	YB	09:20	14:00	04:40	Dry, Wind F4 S, Cloud Cover 4-6/8, Visibility >3km, Temp not recorded.
07/06/2019	MBBS	Round 3	FM	11:00	18:00	07:00	Dry, Wind F2-3 S, Cloud Cover 3-5/8, Visibility >3km, Temp 14-16c.



Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
08/06/2019	MBBS	Round 3	CB	10:15	15:55	05:40	Dry, Wind F2 SW to NE, Cloud Cover 6/8, Visibility >3km, Temp 12-13c.
08/06/2019	MBBS	Round 3	YB	12:00	16:30	04:30	Dry, Wind F3 NE, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
08/06/2019	MBBS	Round 3	FM	10:30	16:30	06:00	Dry, Wind F3-4 NE, Cloud Cover 5-7/8, Visibility >3km, Temp 12-14c.
09/06/2019	MBBS	Round 3	YB	11:45	16:30	04:45	Dry, Wind F2 NE, Cloud Cover 6-8/8, Visibility >3km, Temp 13-11c.
16/06/2019	Raptors	3	PR	17:30	21:30	04:00	Dry, Wind F3 SE, Cloud Cover 4-3/8, Visibility >3km, Temp 12-8c.
17/06/2019	Raptors	3	PR	13:00	20:00	07:00	Drizzle at start, Wind F4 S, Cloud Cover 6-4/8, Visibility >3km, Temp 14-15c.
18/06/2019	Raptors	3	PR	07:30	18:30	11:00	Drizzle at start, Wind F5 SW, Cloud Cover 6-5/8, Visibility >3km, Temp 13c.
19/06/2019	Raptors	3	PR	08:00	21:30	13:30	Heavy showers, Wind F4-5 SW, Cloud Cover 7-6/8, Visibility >3km, Temp 13c.
20/06/2019	Raptors	3	PR	07:30	18:30	11:00	Heavy showers, Wind F3-4 SW, Cloud Cover 6-7/8, Visibility >3km to 1-3km, Temp 9-10c.
21/06/2019	Raptors	3	PR	08:30	11:30	03:00	Dry, Wind F4 W, Cloud Cover 6/8, Visibility >3km, Temp 9c.
23/06/2019	Raptors	3	NR	18:30	21:00	02:30	Dry, Wind F3-2 NE, Cloud Cover 5-7/8, Visibility >3km, Temp 17-13c.
24/06/2019	Raptors	3	NR	15:50	19:30	03:40	Heavy showers, Wind F4-5 NE, Cloud Cover 6-8/8, Visibility >3km to 1-3km, Temp 14-13c.
24/06/2019	Raptors	3	NR	08:50	10:50	02:00	Dry, Wind F3 NE, Cloud Cover 6-4/8, Visibility >3km, Temp 14-16c.
25/06/2019	Raptors	3	NR	10:30	19:30	09:00	Dry, Wind F4-3 NE, Cloud Cover 8-5/8, Visibility >3km, Temp 13-14c.

Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
26/06/2019	Raptors	3	NR	12:00	16:00	04:00	Dry, Wind F4 NW, Cloud Cover 8-7/8, Visibility >3km, Temp 14c.
27/06/2019	Raptors	3	NR	11:50	12:55	01:05	Dry, Wind F2 N, Cloud Cover, 5-4/8, Visibility >3km, Temp 15-16c.
27/06/2019	Raptors	3	NR	20:25	21:35	01:10	Dry, Wind F3 NW, Cloud Cover 1/8, Visibility >3km, Temp 14-12c.
03/07/2019	Diver	2	FM	08:00	11:20	02:20	Dry, Wind F2 W, Cloud Cover 5-6/8, Visibility >3km, Temp 12-14c
11/07/2019	MBBS	Round 4	VF	09:00	14:00	05:00	Drizzle, Wind F1-2 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 16-19c.
11/07/2019	MBBS	Round 4	PR	14:00	18:00	04:00	Showers, Wind F3 SW, Cloud Cover 3-7/8, Visibility >3km, Temp 15-18c.
11/07/2019	MBBS	Round 4	ED	10:20	13:35	03:15	Showers, Wind F3 W, Cloud Cover 6-8/8, Visibility >3km, Temp 17c.
12/07/2019	MBBS	Round 4	VF	08:30	15:20	06:50	Dry, Wind F2-3 NW, Cloud Cover 8/8, Visibility >3km, Temp 13-16c.
12/07/2019	MBBS	Round 4	PR	08:30	15:30	07:00	Dry, Wind F2-3 NW, Cloud Cover 8/8, Visibility >3km, Temp 15-17c.
12/07/2019	MBBS	Round 4	ED	10:25	13:35	03:10	Drizzle, Wind F2 NW, Cloud Cover 8/8, Visibility >3km, Temp 16c.
13/07/2019	MBBS	Round 4	VF	08:30	15:40	07:10	Dry, Wind F3 W, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 14-16c.
13/07/2019	MBBS	Round 4	PR	08:30	15:00	06:30	Dry, Wind F3-4 NW, Cloud Cover 4-8/8, Visibility 1-3km to >3km, Temp 13-16c.
13/07/2019	MBBS	Round 4	ED	09:55	13:20	03:25	Showers, Wind F3 W, Cloud Cover 6-8/8, Visibility >3km, Temp 17c.
13/07/2019	Raptors	4	PR	18:00	20:00	02:00	Dry, Wind F3 NW, Cloud Cover 7/8, Visibility >3km, Temp 15c.
14/07/2019	Raptors	4	PR	11:00	18:00	07:00	Dry, Wind F3 N, Cloud Cover 3-4/8, Visibility >3km, Temp 16-17c.



Date	Survey Type	Visit Number	Surveyor	Start	Finish	Duration	Weather summary
15/07/2019	Diver	2	VF	09:20	16:30	07:10	Dry, Wind F3 SW, Cloud Cover 2/8, Visibility >3km, Temp 17-19c
15/07/2019	Diver	2	PR	11:15	20:00	05:00	Dry, Wind F3-4 E, Cloud Cover 2/8, Visibility >3km, Temp 18-16c
16/07/2019	Diver	2	VF	09:10	17:00	07:50	Dry, Wind F3 W, Cloud Cover 5/8, Visibility >3km, Temp 16-18c
16/07/2019	Raptors	4	PR	10:00	19:00	09:00	Drizzle, Wind F4-5 SE, Cloud Cover 3-8/8, Visibility >3km, Temp 16-14c.
24/07/2019	Diver	Speireac h	MC	16:00	18:15	02:15	Dry, Wind F2-3 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 16c
30/07/2019	Diver	Visit 2	VF	08:00	14:30	06:30	Dry, Wind F1 E, Cloud Cover 6-8/8, Visibility >3km, Temp 17c
01/08/2019	Diver	2nd Aug visit	YB	15:40	18:05	02:30	Dry, Wind F2 NE Cloud Cover 0/8, Visibility >3km, Temp ?
02/08/2019	Diver	2nd Aug visit	YB	08:15	13:30	05:00	Dry, Wind F2 NE Cloud Cover 0-6/8, Visibility >3km, Temp ?

C.3 Hen Harrier Focal Watch Survey Effort

Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
19/05/2019	HH FW 9	YB	08:00	11:00	03:00	Showers, Wind F0-1 NE, Cloud Cover 8/8, Visibility 1-3 to >3km, Temp 10c.
19/05/2019	HH FW 4	YB	11:55	14:55	03:00	Dry, Wind F0-1 NE, Cloud Cover 7-6/8, Visibility >3km, Temp 13c.
20/05/2019	HH FW 10	YB	08:40	11:40	03:00	Dry, Wind F3 W, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
20/05/2019	HH FW 8	YB	16:00	19:00	03:00	Dry, Wind F2-3 NE, Cloud Cover 6-5/8, Visibility >3km, Temp not recorded.
21/05/2019	HH FW 4	YB	08:10	11:10	03:00	Dry, Wind F3 NW, Cloud Cover 8-4/8, Visibility >3km, Temp not recorded.
21/05/2019	HH FW 8	YB	13:40	16:40	03:00	Dry Wind F3-2 NW, Cloud Cover 6-4/8, Visibility >3km, Temp not recorded.
21/05/2019	HH FW 9	PR	17:10	20:10	03:00	Light showers, Wind F4 NW, Cloud Cover 6/8 Visibility >3km, Temp 10-13c
22/05/2019	HH FW 8	PR	10:35	13:35	03:00	Light showers, Wind F4 NW, Cloud Cover 5-8/8 Visibility >3km, Temp 9-12c
22/05/2019	HH FW 4	PR	14:35	17:35	03:00	Light showers, Wind F4 NW, Cloud Cover 7/8 Visibility >3km, Temp 11c
22/05/2019	HH FW 10	YB	10:10	13:10	03:00	Dry, Wind F4 NW, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
22/05/2019	HH FW 9	YB	14:00	17:00	03:00	Showers, Wind F4-3 NW, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
23/05/2019	HH FW 10	YB	13:30	16:30	03:00	Dry, Wind F4-5 NW, Cloud Cover 8/8, Visibility 1-3 to >3km, Temp 8c.
02/06/2019	HH FW 4	YB	15:30	18:30	03:00	Dry, Wind SW F4-3, Cloud Cover 4-6/8, Visibility >3km, Temp 13c.
03/06/2019	HH FW 8	YB	08:00	11:00	03:00	Showers at end, Wind F3-4 SW, Cloud Cover 3-8/8, Visibility >3km to 1-3km, Temp not recorded.



Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
03/06/2019	HH FW 9	YB	11:55	14:55	03:00	Heavy showers, Wind F5 SW, Cloud Cover 8-6/8, Visibility >3km to 1-3km, Temp not recorded.
03/06/2019	HH FW 10	YB	16:10	19:10	03:00	Showers, Wind F4 SW, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
04/06/2019	HH FW 9	YB	08:00	11:00	03:00	Dry, Wind F2 SW to W, Cloud Cover 6/8, Visibility >3km, Temp not recorded.
04/06/2019	HH FW 11	YB	16:00	19:00	03:00	Dry, Wind F4-3 NW, Cloud Cover 6-4/8, Visibility >3km, Temp not recorded.
09/06/2019	HH FW 9	YB	08:00	11:00	03:00	Dry, Wind F3-1 NE, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded.
10/06/2019	HH FW 9	YB	17:00	20:00	03:00	Dry, Wind F3 N, Cloud Cover 4-8/8, Visibility >3km, Temp not recorded.
10/06/2019	HH FW 11	YB	13:15	16:15	03:00	Dry, Wind F2 N, Cloud Cover 8/8, Visibility >3km, Temp not recorded.
23/06/2019	HH FW 9	VF	12:00	15:00	03:00	Dry, Wind F3-4 E, Cloud Cover 3-2/8, Visibility >3km, Temp 15-18c.
25/06/2019	HH FW 9	VF	12:00	15:00	03:00	Dry, Wind F4 NE, Cloud Cover 4/8, Visibility >3km, Temp not recorded.
26/06/2019	HH FW 9	ED	13:55	16:55	03:00	Dry, Wind F3 NW, Cloud Cover 7-8/8, Visibility >3km, Temp 16-15c.
27/06/2019	HH FW 10	ED	09:50	12:50	03:00	Dry, Wind F2-1 NW, Cloud Cover 6-7/8, Visibility >3km, Temp 14-17c.
27/06/2019	HH FW 10	ED	13:20	16:20	03:00	Dry, Wind F2 N, Cloud Cover 3-8/8, Visibility >3km, Temp 17c.
29/06/2019	HH FW 4	ED	10:20	13:20	03:00	Dry, Wind F3-4 S, Cloud Cover 3-4/8, Visibility >3km, Temp 20-22c.
29/06/2019	HH FW 4	ED	13:50	16:50	03:00	Dry, Wind F3-4 S, Cloud Cover 4-5/8, Visibility >3km, Temp 20-19c.
01/07/2019	HH FW 4	FM	19:35	22:35	03:00	Dry, Wind F1-2 W, Cloud Cover 8/8, Visibility >3km, Temp 9c.



Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
02/07/2019	HH FW 9	MC	12:00	15:00	03:00	Dry, Wind F5 SW, Cloud Cover 6-8/8, Visibility >3km, Temp 14-13c.
04/07/2019	HH FW 9	MC	04:30	07:30	03:00	Light showers, Wind F6 SW, Cloud Cover 8/8, Visibility >3km, Temp 10c.
05/07/2019	HH FW 9	MC	17:45	20:45	03:00	Dry, Wind F4-5 SW, Cloud Cover 4-7/8, Visibility >3km, Temp 12-9c.



C.4 Diver Focal Watch Survey Effort

Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
07/06/2019	DFW 6	YB	19:25	22:25	03:00	Dry, Wind F2 NE, Cloud Cover 6-7/8, Visibility >3km, Temp 14c.
08/06/2019	DFW 4	CB	19:00	22:00	03:00	Dry, Wind F4-2 NE, Cloud Cover 4-7/8, Visibility >3km, Temp 13-8c.
09/06/2019	DFW 4	CB	04:20	07:20	03:00	Dry, Wind F2-3 NE, Cloud Cover 2-4/8, Visibility >3km, Temp 9c.
09/06/2019	DFW 7	YB	19:30	22:30	03:00	Dry, Wind F3-1 NE, Cloud Cover 4-8/8, Visibility >3km to 1-3km, Temp 10c.
09/06/2019	DFW 1	FM	04:24	07:24	03:00	Dry, Wind F3 NE, Cloud Cover 4-5/8, Visibility >3km, Temp 8-10c
09/06/2019	DFW 2	FM	19:27	22:27	03:00	Dry, Wind F0-1 NE, Cloud Cover 3-4/8, Visibility >3km, Temp 10-11c
11/06/2019	DFW 1	VF	19:30	22:30	03:00	Showers, Wind F6 N, Cloud Cover 7/8, Visibility >3km, Temp 11c.
12/06/2019	DFW 2	VF	04:20	07:20	03:00	Dry, Wind F6 N, Cloud Cover 8/8, Visibility >3km, Temp 7-8c.
12/06/2019	DFW 4	VF	19:30	22:30	03:00	Showers, Wind F7 N, Cloud Cover 8/8, Visibility >3km, Temp 8c.
13/06/2019	DFW 4	VF	04:20	07:20	03:00	Dry, Wind F6 N, Cloud Cover 8/8, Visibility >3km, Temp 7c.
13/06/2019	DFW 6	VF	19:30	22:30	03:00	Showers, Wind F4 NE, Cloud Cover 8/8, Visibility >3km to 1-3km, Temp 9c.
14/06/2019	DFW 7	VF	04:20	07:20	03:00	Drizzle, Wind F2 NE, Cloud Cover 8/8, Visibility <1km to 1-3km, Temp 7c.
21/06/2019	DFW 2	VF	19:35	22:35	03:00	Showers, Wind F3-5 W, Cloud Cover 2-4/8, Visibility >3km, Temp 14-11c.
22/06/2019	DFW 7	VF	04:20	07:20	03:00	Dry, Wind F0-4 W, Cloud Cover 5-8/8, Visibility >3km, Temp 7-8c.



Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
22/06/2019	DFW 7	VF	19:35	22:35	03:00	Dry, Wind F2-1 SW, Cloud Cover 5-4/8, Visibility >3km, Temp 14-11c.
23/06/2019	DFW 6	VF	19:30	22:30	03:00	Dry, Wind F2 E, Cloud Cover 8/8, Visibility >3km, Temp 14-11c.
24/06/2019	DFW 6	VF	04:20	07:20	03:00	Showers, Wind F0-2 E, Cloud Cover 6-8/8, Visibility >3km, Temp 11c.
26/06/2019	DFW 1	ED	19:20	22:35	03:15	Dry, Wind F4 NW, Cloud Cover 7-8/8, Visibility >3km, Temp 14-11c.
26/06/2019	DFW 2	ED	04:20	07:20	03:00	Dry, Wind F1-2 W-NW, Cloud Cover 7-8/8, Visibility >3km, Temp 8-9c.
27/06/2019	DFW 2	ED	19:35	22:35	03:00	Dry, Wind F2 N-NE, Cloud Cover 0-4/8, Visibility >3km, Temp 15-10c.
28/06/2019	DFW 6	ED	19:30	22:30	03:00	Dry, Wind F1-2 N, Cloud Cover 2-4/8, Visibility >3km, Temp 20-15c.
28/06/2019	DFW 7	ED	04:25	07:25	03:00	Dry, Wind F1 NE, Cloud Cover 8/8, Visibility <1km, Temp 10c.
28/06/2019	DFW 6	ED	19:30	22:30	03:00	Dry, Wind F2-1 N, Cloud Cover 2-4/8, Visibility >3km, Temp 15-20c.
30/06/2019	DFW 8	ED	04:25	07:25	03:00	Showers, Wind F4 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 13c.
30/06/2019	DFW 7	FM	19:35	22:35	03:00	Showers, Wind F3-4 W, Cloud Cover 8/8, Visibility 1 -3km to >3km, Temp 10-8c.
30/06/2019	DFW 1	ED	19:20	20:50	02:00	Heavy Persistent rain, Wind F5 S, Cloud Cover 8/8, Visibility 1-2km, Temp 14c
01/07/2019	DFW 8	FM	14:40	17:40	03:00	Drizzle, Wind F2 W, Cloud Cover 8/8, Visibility >3km, Temp 11c.
02/07/2019	DFW 4	MC	20:00	23:00	03:00	Drizzle, Wind F4-3 SW, Cloud Cover 5-8/8, Visibility 1-3km to >3km, Temp 13-10c.
03/07/2019	DFW 8	FM	04:30	07:30	03:00	Dry, Wind F2-3 W, Cloud Cover 5-8/8, Visibility >3km, Temp 11-12c.



Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
03/07/2019	DFW 7	MC	05:15	06:15	01:00	Drizzle, Wind F3-2 SW, Cloud Cover 8/8, Visibility <1km, Temp 13c.
03/07/2019	DFW 7	MC	20:00	23:00	03:00	Dry, Wind F6-5 SW, Cloud Cover 3-8/8, Visibility >3km, Temp 12-8c.
04/07/2019	DFW 8	FM	19:30	22:30	03:00	Drizzle, Wind F2 W, Cloud Cover 8/8, Visibility > 3km, Temp 10-8c.
04/07/2019	DFW 2	MC	19:45	21:15	01:30	Drizzle, Wind F3 SW, Cloud Cover 8/8, Visibility <1km, Temp 10c.
05/07/2019	DFW 1	MC	04:30	07:30	03:00	Drizzle, Wind F0-2 SW, Cloud Cover 8/8, Visibility >3km, Temp 12-10c.
06/07/2019	DFW 1	MC	19:30	22:30	03:00	Dry, Wind F2-4 NW, Cloud Cover 7-8/8, Visibility >3km, Temp 10-7c.
06/07/2019	DFW 2	MC	04:45	07:45	03:00	Dry, Wind F4 SW-NW, Cloud Cover 7-8/8, Visibility >3km, Temp 9c.
11/07/2019	DFW 8	PR	18:15	21:15	03:00	Dry, Wind F3 NW-W, Cloud Cover 4/8, Visibility >3km, Temp 16-14c.
11/07/2019	DFW 7	ED	19:20	22:20	03:00	Dry, Wind F2 variable, Cloud Cover 4-7/8, Visibility >3km, Temp 17-16c.
12/07/2019	DFW 7	VF	19:20	22:20	03:00	Dry, Wind F3 W, Cloud Cover 8/8, Visibility 1-3km, Temp 14c.
12/07/2019	DFW 4	ED	19:20	22:20	03:00	Drizzle, Wind F2-1 W, Cloud Cover 8/8, Visibility >3km, Temp 16-14c
12/07/2019	DFW 8	PR	18:20	21:20	03:00	Dry, Wind F3 W, Cloud Cover 8/8, Visibility >3km, Temp 16-12c.
13/07/2019	DFW 2	ED	19:20	22:20	03:00	Dry, Wind F2-1 NW, Cloud Cover 8/8, Visibility >3km, Temp 14-12c.
14/07/2019	DFW 4	VF	04:40	07:40	03:00	Dry, Wind F0, Cloud Cover 7/8, Visibility >3km, Temp 15c.
14/07/2019	DFW 8	PR	19:20	22:20	03:00	Dry, Wind F2 N, Cloud Cover 2/8, Visibility >3km, Temp 16-14c.

Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
18/07/2019	DFW 2	VF	05:30	08:30	03:00	Heavy showers, Wind F4-3 W, Cloud Cover 8/8, Visibility >3km, Temp 13c.
18/07/2019	DFW 8	VF	18:00	21:00	03:00	Heavy showers, Wind F4-3 W, Cloud Cover 8/8, Visibility >3km, Temp 14c.
19/07/2019	DFW 7	YB	19:15	22:15	03:00	Dry, Wind F1-2 SW, Cloud Cover 3-7/8, Visibility >3km, Temp not recorded.
20/07/2019	DFW 2	YB	19:10	22:10	03:00	Dry, Wind F2-3 SW, Cloud Cover 1-8/8, Visibility 1-3km to >3km, Temp not recorded.
20/07/2019	DFW 8	YB	04:50	07:50	03:00	Dry, Wind F2 SW, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
21/07/2019	DFW 8	YB	04:45	07:45	03:00	Drizzle, Wind F3 S-SW, Cloud Cover 7-8/8, Visibility 1-3km to >3km, Temp not recorded
21/07/2019	DFW 8	YB	19:10	22:10	03:00	Showers, Wind F3-4 SE, Cloud Cover 7-8/8, Visibility 1-3km , Temp not recorded
21/07/2019	DFW 4	FM	19:10	22:10	03:00	Drizzle, Wind F3-4 SSW, Cloud Cover 8/8, Visibility >3km, Temp 16-17c.
22/07/2019	DFW 4	YB	19:10	22:10	03:00	Showers, Wind F2-3 SW, Cloud Cover 8/8, Visibility 1-3km , Temp not recorded
22/07/2019	DFW 7	FM	04:55	07:55	03:00	Drizzle, Wind F2-3 SSW, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 16-17c.
22/07/2019	DFW 8	MC	19:30	22:30	03:00	Heavy showers, Wind F3 SE, Cloud Cover 8/8, Visibility 1-3km to >3km, Temp 13-14c
23/07/2019	DFW 2	YB	04:55	07:55	03:00	Showers, Wind F4-5 S-SW, Cloud Cover 8/8, Visibility 1-3km , Temp not recorded
23/07/2019	DFW 2	YB	19:05	22:05	03:00	Dry, Wind F0-2 SW, Cloud Cover 5-7/8, Visibility >3km, Temp not recorded
23/07/2019	DFW 7	MC	18:15	21:15	03:00	Dry, Wind F5 SW, Cloud Cover 7-8/8, Visibility >3km, Temp 13-16c
23/07/2019	DFW 8	MC	12:30	15:30	03:00	Dry, Wind F8-9 SW, Cloud Cover 8/8, Visibility >3km, Temp 15c



Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
23/07/2019	DFW 4	FM	05:00	08:00	03:00	Showers, Wind F4 S, Cloud Cover 8/8, Visibility >3km, Temp 16-18c.
23/07/2019	DFW 4	FM	19:05	22:05	03:00	Dry, Wind F4-1 S, Cloud Cover 6-7/8, Visibility >3km, Temp 17-19c.
23/07/2019	DFW 7	MC	05:00	06:00	01:00	Heavy rain, Wind F6-8 SE, Cloud Cover 8/8, Visibility <1km, Temp 13c
24/07/2019	DFW 4	YB	04:50	07:50	03:00	Dry, Wind F0, Cloud Cover 6-8/8, Visibility >3km, Temp not recorded
24/07/2019	DFW 2	MC	05:45	08:45	03:00	Dry, Wind F0, Cloud Cover 8/8, Visibility >3km, Temp 16c
24/07/2019	DFW 7	MC	18:30	21:30	03:00	Dry, Wind F3-4 SE, Cloud Cover 4-8/8, Visibility >3km, Temp 11-16c
24/07/2019	DFW 2	FM	19:00	22:00	03:00	Dry, Wind F1-2 S, Cloud Cover 6-8/8, Visibility >3km, Temp 16-15c.
24/07/2019	DFW 7	FM	05:00	08:00	03:00	Dry, Wind F2-3 S, Cloud Cover 6-7/8, Visibility >3km, Temp 17-18c.
25/07/2019	DFW 4	MC	06:30	09:30	03:00	Dry, Wind F1-2 SE, Cloud Cover 7-8/8, Visibility >3km, Temp 16c
25/07/2019	DFW 4	FM	19:00	22:00	03:00	Dry, Wind F2 SE, Cloud Cover 4-6/8, Visibility >3km, Temp 20-18c.
26/07/2019	DFW 7	VF	19:00	22:00	03:00	Dry, Wind F3 SW, Cloud Cover 6-7/8, Visibility >3km, Temp 20c.
26/07/2019	DFW 7	FM	05:00	08:00	03:00	Dry, Wind F2-1 SSE, Cloud Cover 0-3/8, Visibility >3km, Temp 18c.
26/07/2019	DFW 8	FM	19:00	22:00	03:00	Dry, Wind F2-3 SSE, Cloud Cover 8/8, Visibility >3km, Temp 20c.
26/07/2019	DFW 4	VF	05:30	08:30	03:00	Dry, Wind F3 SW, Cloud Cover 4/8, Visibility >3km, Temp 17c.
26/07/2019	DFW 7	MC	14:15	17:15	03:00	Dry, Wind F3 SE, Cloud Cover 3-4/8, Visibility >3km, Temp 20-21c

Date	FW Number	Surveyor	Start	Finish	Duration	Weather summary
27/07/2019	DFW 8	FM	05:00	08:00	03:00	Dry, Wind F2 SE, Cloud Cover 8/8, Visibility >3km, Temp 17-19c.
27/07/2019	DFW 8	VF	16:00	19:00	03:00	Dry, Wind F2 NW, Cloud Cover 8/8, Visibility >3km, Temp 16c.
29/07/2019	DFW 8	VF	19:00	22:00	03:00	Dry, Wind F2-3 E, Cloud Cover 3-4/8, Visibility >3km, Temp 17-20c
01/08/2019	DFW 8	YB	18:50	21:50	03:00	Dry, Wind F2 NE, Cloud Cover 0-4/8, Visibility >3km, Temp ?
02/08/2019	DFW 7	YB	18:45	21:45	03:00	Dry, Wind F2-3 NE, Cloud Cover 2/8, Visibility >3km, Temp ?
03/08/2019	DFW 7	YB	05:20	08:20	03:00	Dry, Wind F2 E, Cloud Cover 0-4/8, Visibility >3km, Temp ?
03/08/2019	DFW 7	YB	18:40	21:40	03:00	Dry, Wind F3-4 NE, Cloud Cover 5-8/8, Visibility >3km, Temp ?
04/08/2019	DFW 7	YB	05:20	08:20	03:00	Dry, Wind F2 SE, Cloud Cover 8/8, Visibility >3km, Temp ?
04/08/2019	DFW 8	YB	18:40	21:40	03:00	Dry, Wind F2-3 NE, Cloud Cover 4-8/8, Visibility >3km, Temp ?
05/08/2019	DFW 7	YB	18:40	21:40	03:00	Dry, Wind F1-2 NE, Cloud Cover 7-8/8, Visibility 1-3 - >3km, Temp ?
06/08/2019	DFW 7	YB	05:25	08:25	03:00	Dry, Wind F1-2 NE, Cloud Cover 8/8, Visibility >3km, Temp ?
06/08/2019	DFW 7	YB	18:35	21:35	03:00	Light showers, Wind F2-3 N, Cloud Cover 8/8, Visibility 1-3km, Temp ?
15/08/2019	DFW 7	YB	18:15	21:15	03:00	Dry, Wind F3 SW, Cloud Cover 4-8/8, Visibility >3km, Temp not recorded
25/08/2019	DFW 7	ED	17:45	20:45	03:00	Dry, Wind F2 S, Cloud Cover 1-2/8, Visibility >3km, Temp 18-14c



Annex D

Flight Data

D.1 VP Flight Data

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0245_a	12/04/2019	15:26	2	HH	1	B	135	135	1270	Adult female, holding flight into wind, slow hunting, lost in swale
40001_VP_0245_b	12/04/2019	15:26	2	HH	1	A	75	75	907	
40001_VP_0246_a	12/04/2019	17:28	2	EA	1	D	75	75	989	adult, soaring flight, lost low to SW
40001_VP_0246_b	12/04/2019	17:28	2	EA	1	C	60	60	1972	
40001_VP_0246_c	12/04/2019	17:28	2	EA	1	B	45	45	1000	
40001_VP_0247_a	12/04/2019	09:48	8	NX	1	B	75	75	2055	soaring then lost low
40001_VP_0247_b	12/04/2019	09:48	8	NX	1	A	15	15	318	
40001_VP_0248_a	12/04/2019	10:02	8	GJ	1	B	45	45	1226	direct flight, lost behind vp
40001_VP_0248_b	12/04/2019	10:02	8	GJ	1	A	15	15	374	
40001_VP_0249	12/04/2019	10:16	8	GJ	8	A	30	240	532	Lost low/landed on moor
40001_VP_0250	12/04/2019	10:17	8	NX	2	C	75	150	2617	soaring, lost in haze to NE
40001_VP_0251_a	12/04/2019	10:40	8	HH	2	B	120	240	1112	Pair soaring over plantation then lost low



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0251_b	12/04/2019	10:40	8	HH	2	A	30	60	149	
40001_VP_0252_a	12/04/2019	10:40	8	HH	1	B	105	105	463	Adult male, soaring near previous birds, then lost low to north
40001_VP_0252_b	12/04/2019	10:40	8	HH	1	A	15	15	119	
40001_VP_0253_a	12/04/2019	10:58	8	NX	2	B	60	120	1514	high soaring and lost to north
40001_VP_0253_b	12/04/2019	10:58	8	NX	2	C	75	150	452	
40001_VP_0254_a	12/04/2019	11:21	8	WE	1	C	150	150	1438	Immature, high soaring flight
40001_VP_0254_b	12/04/2019	11:21	8	WE	1	D	180	180	2074	lost to north in bright sky
40001_VP_0255_a	12/04/2019	12:02	8	NX	2	C	105	210	1480	soaring pair lost in heat haze
40001_VP_0255_b	12/04/2019	12:02	8	NX	2	B	30	60	175	
40001_VP_0256	12/04/2019	12:10	8	EA	1	C	120	120	1421	distant silhouette in haze
40001_VP_0257	12/04/2019	12:15	8	NX	1	C	105	105	1970	soaring, lost north
40001_VP_0258_a	12/04/2019	12:23	8	WE	1	B	45	45	730	adult thermaling, lost high high to NW - picked up by NRO at vp2
40001_VP_0258_b	12/04/2019	12:23	8	WE	1	C	270	270	3920	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0258_c	12/04/2019	12:23	8	WE	1	D	165	165	4258	
40001_VP_0259	12/04/2019	09:55	2	PG	6	B	180	1080	2678	East past Loch Garbhraig
40001_VP_0260_a	12/04/2019	11:10	2	NX	2	B	45	90	732	circling
40001_VP_0260_b	12/04/2019	11:10	2	NX	2	C	15	30	607	
40001_VP_0261	12/04/2019	11:38	2	WE	1	B	15	15	409	brief flight from west, lost into slope before VP - likely passed to north
40001_VP_0262_a	12/04/2019	12:25	2	HH	1	B	120	120	1378	Male adult skydancing - dropped below ridge
40001_VP_0262_b	12/04/2019	12:25	2	HH	1	A	15	15	629	
40001_VP_0263	12/04/2019	12:31	2	WE	1	C	420	420	3741	originally picked up by PRO, adult, mobbed by BZ, returned south
40001_VP_0264	12/04/2019	15:52	5	WS	3	B	60	180	1608	over vp, lost to NW
40001_VP_0265_a	12/04/2019	16:13	5	ML	1	B	15	15	530	Male, continuous calling in flight from plantation into valley behind vp, steep swoop down but lost due to ridge
40001_VP_0265_b	12/04/2019	16:13	5	ML	1	A	2	2	56	
40001_VP_0266	14/04/2019	08:27	4	GJ	2	A	30	60	526	lost behind hill over plantation



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0267	14/04/2019	08:48	4	GJ	2	A	15	30	543	landed edge of nearest gull roost
40001_VP_0268	14/04/2019	09:01	4	NX	1	B	30	30	770	
40001_VP_0269_a	14/04/2019	09:11	4	NX	1	B	15	15	360	
40001_VP_0269_b	14/04/2019	09:11	4	NX	1	A	15	15	186	
40001_VP_0269_c	14/04/2019	09:11	4	NX	1	B	15	15	277	
40001_VP_0270_a	14/04/2019	09:11	4	GJ	2	A	15	30	263	
40001_VP_0270_b	14/04/2019	09:11	4	GJ	2	B	45	90	704	
40001_VP_0271_a	14/04/2019	09:20	4	GJ	1	A	30	30	433	
40001_VP_0271_b	14/04/2019	09:20	4	GJ	1	B	45	45	1204	
40001_VP_0272	14/04/2019	09:38	4	GJ	1	B	75	75	1193	
40001_VP_0273_a	14/04/2019	09:48	4	NX	2	B	135	270	3405	
40001_VP_0273_b	14/04/2019	09:48	4	NX	2	A	15	30	118	
40001_VP_0274_a	14/04/2019	10:50	4	EA	1	C	45	45	297	drifitng E-W then mobbed by rN during fast decent



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0274_b	14/04/2019	10:50	4	EA	1	B	105	105	768	
40001_VP_0274_c	14/04/2019	10:50	4	EA	1	A	30	30	392	
40001_VP_0275	14/04/2019	11:06	4	GJ	2	B	60	120	1218	
40001_VP_0276	14/04/2019	09:09	4	HH	1	A	45	45	314	adult male hunting low through plantation
40001_VP_0277	14/04/2019	09:27	4	HH	1	A	180	180	1600	adult male (same as previous?) hunting through plantation, lost west of tip
40001_VP_0278	14/04/2019	11:23	4	HH	1	A	60	60	951	RT/female chasing RN
40001_VP_0279	14/04/2019	11:58	4	NX	1	A	30	30	339	low, fast and lost in swale
40001_VP_0280	14/04/2019	12:20	4	GJ	2	A	30	60	739	low calling, lost to north
40001_VP_0281_a	14/04/2019	12:36	4	NX	1	B	45	45	319	hanging in wind, lost in valley
40001_VP_0281_b	14/04/2019	12:36	4	NX	1	A	15	15	172	
40001_VP_0282_a	14/04/2019	13:06	4	NX	1	B	45	45	641	lost low on moor
40001_VP_0282_b	14/04/2019	13:06	4	NX	1	A	30	30	248	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0283_a	14/04/2019	13:55	4	NX	1	B	60	60	1248	high soaring flight, lost to SW
40001_VP_0283_b	14/04/2019	13:55	4	NX	1	C	120	120	1986	
40001_VP_0283_c	14/04/2019	13:55	4	NX	1	D	90	90	1970	
40001_VP_0284_a	14/04/2019	14:15	4	NX	1	B	135	135	2190	soaring flight, lost in swale
40001_VP_0284_b	14/04/2019	14:15	4	NX	1	A	30	30	137	
40001_VP_0285	14/04/2019	14:18	4	GJ	3	A	30	90	546	lost low to NE
40001_VP_0286_a	14/04/2019	13:42	5	WE	1	C	120	120	2358	High circles between old vp6 and Loch Speireig Mhor
40001_VP_0286_b	14/04/2019	13:42	5	WE	1	B	420	420	1777	
40001_VP_0286_c	14/04/2019	13:42	5	WE	1	A	45	45	446	steep swoop south behind ridge
40001_VP_0287	14/04/2019	13:58	5	WE	1	C	60	60	1175	likely same bird, lost to SW
40001_VP_0288_a	14/04/2019	14:38	5	ML	1	A	5	5	72	Male chasing off RN from behind VP
40001_VP_0288_b	14/04/2019	14:38	5	ML	1	B	30	30	554	
40001_VP_0288_c	14/04/2019	14:38	5	ML	1	A	5	5	64	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0289_a	14/04/2019	14:44	5	HH	1	B	30	30	225	probably female hunting over hill
40001_VP_0289_b	14/04/2019	14:44	5	HH	1	A	75	75	1375	
40001_VP_0290	14/04/2019	08:31	5	HH	1	A	90	90	923	Adult male lost in plantation
40001_VP_0291	14/04/2019	08:48	5	GJ	1	B	45	45	609	lost to SE
40001_VP_0292	14/04/2019	09:14	5	T	2	A	30	60	712	Low following burn
40001_VP_0293_a	14/04/2019	09:15	5	HH	1	B	45	45	322	Female hanging in wind
40001_VP_0293_b	14/04/2019	09:15	5	HH	1	A	15	15	84	lost low
40001_VP_0294	14/04/2019	10:02	5	GJ	2	B	45	90	657	lost to north
40001_VP_0295	14/04/2019	10:50	5	GJ	3	A	45	135	796	landed to east
40001_VP_0296_a	14/04/2019	11:10	5	HH	2	A	45	90	1145	2 adult males, chasing/social flight
40001_VP_0296_b	14/04/2019	11:10	5	HH	2	B	45	90	644	
40001_VP_0296_c	14/04/2019	11:10	5	HH	2	A	30	60	867	lost to NE
40001_VP_0297_a	14/04/2019	11:12	5	HH	1	B	45	45	511	adult male, hanging into wind, lost low



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0297_b	14/04/2019	11:12	5	HH	1	A	15	15	154	
40001_VP_0298_a	15/04/2019	17:45	3	NX	1	A	30	30	937	
40001_VP_0298_b	15/04/2019	17:45	3	NX	1	B	15	15	252	
40001_VP_0298_c	15/04/2019	17:45	3	NX	1	A	15	15	120	
40001_VP_0299_a	15/04/2019	17:52	3	NX	2	B	30	60	370	
40001_VP_0299_b	15/04/2019	17:52	3	NX	2	A	30	60	745	
40001_VP_0299_c	15/04/2019	17:52	3	NX	2	B	15	30	365	
40001_VP_0300_a	15/04/2019	18:27	3	NX	2	B	15	30	953	
40001_VP_0300_b	15/04/2019	18:27	3	NX	2	A	30	60	194	
40001_VP_0301	15/04/2019	18:31	3	NX	2	A	30	60	652	
40001_VP_0302_a	15/04/2019	18:57	3	NX	2	A	60	120	1043	
40001_VP_0302_b	15/04/2019	18:57	3	NX	2	B	15	30	458	
40001_VP_0302_c	15/04/2019	18:57	3	NX	2	A	15	30	305	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0302_d	15/04/2019	18:57	3	NX	2	B	15	30	406	
40001_VP_0302_e	15/04/2019	18:57	3	NX	2	A	30	60	561	
40001_VP_0303_a	15/04/2019	19:01	3	BV	2	A	15	30	75	
40001_VP_0303_b	15/04/2019	19:01	3	BV	2	B	45	90	878	
40001_VP_0303_c	15/04/2019	19:01	3	BV	2	A	15	30	144	
40001_VP_0304	15/04/2019	19:14	3	GJ	3	A	30	90	409	
40001_VP_0305	16/04/2019	13:37	8	RM	2	A	15	30	306	
40001_VP_0306	16/04/2019	13:39	8	ML	1	A	15	15	440	
40001_VP_0307_a	16/04/2019	13:40	8	HH	1	A	60	60	1131	
40001_VP_0307_b	16/04/2019	13:40	8	HH	1	B	60	60	1064	
40001_VP_0307_c	16/04/2019	13:40	8	HH	1	A	15	15	172	
40001_VP_0308	16/04/2019	14:10	8	NX	1	B	75	75	1233	
40001_VP_0309	13/05/2019	18:34	4	NX	1	A	60	60	1160	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0310	13/05/2019	18:36	4	NX	2	A	105	210	1076	
40001_VP_0311	13/05/2019	19:37	4	NX	2	A	30	60	482	
40001_VP_0312	14/05/2019	Not recorded	2	ML	2	A	60	120	1623	
40001_VP_0313	15/05/2019	17:15	5	ML	1	A	30	30	713	adult female
40001_VP_0314	15/05/2019	18:37	1	GP	3	A	15	45	402	
40001_VP_0315	15/05/2019	18:50	1	GJ	1	A	45	45	860	
40001_VP_0316	15/05/2019	18:56	1	GP	1	A	30	30	278	
40001_VP_0317	15/05/2019	19:08	1	GP	1	A	15	15	187	
40001_VP_0318_a	15/05/2019	19:28	1	GJ	2	A	30	60	1025	
40001_VP_0318_b	15/05/2019	19:28	1	GJ	2	B	30	60	275	
40001_VP_0319_a	15/05/2019	20:13	1	RH	2	A	15	30	699	
40001_VP_0319_b	15/05/2019	20:13	1	RH	2	B	135	270	2353	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0319_c	15/05/2019	20:13	1	RH	2	C	60	120	904	
40001_VP_0319_d	15/05/2019	20:13	1	RH	2	B	75	150	993	
40001_VP_0319_e	15/05/2019	20:13	1	RH	2	A	15	30	308	
40001_VP_0320	15/05/2019	20:35	1	GJ	2	B	30	60	868	
40001_VP_0321	15/05/2019	20:49	1	BV	1	B	150	150	2961	
40001_VP_0322	17/05/2019	07:49	3	NX	1	A	15	15	186	
40001_VP_0323	17/05/2019	07:54	3	NX	1	A	15	15	233	
40001_VP_0324	17/05/2019	07:58	3	NX	1	A	15	15	178	
40001_VP_0325_a	17/05/2019	08:04	3	GJ	2	A	30	60	530	
40001_VP_0325_b	17/05/2019	08:04	3	GJ	2	B	45	90	1100	
40001_VP_0326	17/05/2019	08:14	3	GJ	2	A	75	150	1322	
40001_VP_0327	17/05/2019	08:40	3	NX	1	A	30	30	337	
40001_VP_0328	17/05/2019	08:43	3	GJ	2	A	15	30	410	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0329_a	17/05/2019	08:58	3	HH	1	A	90	90	1174	adult male hunting
40001_VP_0329_b	17/05/2019	08:58	3	HH	1	B	75	75	483	
40001_VP_0329_c	17/05/2019	08:58	3	HH	1	A	45	45	764	
40001_VP_0329_d	17/05/2019	08:58	3	HH	1	B	15	15	642	
40001_VP_0329_e	17/05/2019	08:58	3	HH	1	A	15	15	494	
40001_VP_0329_f	17/05/2019	08:58	3	HH	1	B	15	15	356	
40001_VP_0329_g	17/05/2019	08:58	3	HH	1	A	45	45	652	
40001_VP_0329_h	17/05/2019	08:58	3	HH	1	B	135	135	65	
40001_VP_0330	17/05/2019	09:10	3	NX	1	B	30	30	677	
40001_VP_0331_a	17/05/2019	09:16	3	HH	1	B	30	30	234	adult male hunting
40001_VP_0331_b	17/05/2019	09:16	3	HH	1	A	15	15	197	
40001_VP_0331_c	17/05/2019	09:16	3	HH	1	B	75	75	1088	
40001_VP_0332_a	02/06/2019	20:41	8	GJ	2	B	30	60	593	pair



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0332_b	02/06/2019	20:41	8	GJ	2	A	30	60	436	
40001_VP_0333	02/06/2019	20:47	8	HH	1	A	30	30	437	adult male hunting
40001_VP_0334_a	02/06/2019	20:49	8	HH	2	A	60	120	829	adult males hunting
40001_VP_0334_b	02/06/2019	20:49	8	HH	2	B	75	150	986	
40001_VP_0335_a	02/06/2019	21:58	8	BV	2	B	15	30	411	pair
40001_VP_0335_b	02/06/2019	21:58	8	BV	2	A	15	30	121	
40001_VP_0336	05/06/2019	07:25	1	GP	1	A	15	15	201	
40001_VP_0337	05/06/2019	07:48	1	GP	1	A	15	15	249	
40001_VP_0338	05/06/2019	08:14	1	GP	1	A	15	15	240	
40001_VP_0339	05/06/2019	08:33	1	DN	1	A	15	15	181	
40001_VP_0340_a	05/06/2019	09:12	1	RH	3	B	75	225	971	
40001_VP_0340_b	05/06/2019	09:12	1	RH	3	C	30	90	345	
40001_VP_0341	05/06/2019	09:15	1	HH	1	A	75	75	983	adult male hunting



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0342	06/06/2019	18:09	4	NX	1	A	15	15	420	mobbing HG
40001_VP_0343	06/06/2019	19:06	4	NX	1	A	30	30	1008	
40001_VP_0344	06/06/2019	19:09	4	NX	1	A	15	15	551	
40001_VP_0345_a	10/06/2019	08:06	4	NX	1	B	15	15	297	territorial flight
40001_VP_0345_b	10/06/2019	08:06	4	NX	1	A	15	15	376	
40001_VP_0345_c	10/06/2019	08:06	4	NX	1	B	15	15	911	
40001_VP_0346	10/06/2019	10:22	4	NX	1	A	15	15	1198	mobbing HG
40001_VP_0347_a	22/04/2019	17:30	4	RH	2	B	30	60	1885	landed out of sight
40001_VP_0347_b	22/04/2019	17:30	4	RH	2	A	15	30	341	
40001_VP_0348_a	22/04/2019	17:39	4	WE	1	A	105	105	1280	
40001_VP_0348_b	22/04/2019	17:39	4	WE	1	B	60	60	1351	
40001_VP_0349_a	22/04/2019	18:18	4	RH	1	B	120	120	3196	assumed RH from survey sheet - landed out of sight
40001_VP_0349_b	22/04/2019	18:18	4	RH	1	C	60	60	2421	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0349_c	22/04/2019	18:18	4	RH	1	B	45	45	1496	
40001_VP_0349_d	22/04/2019	18:18	4	RH	1	A	15	15	308	
40001_VP_0350	22/04/2019	18:47	4	NX	1	A	60	60	1241	
40001_VP_0351_a	22/04/2019	18:50	4	GP	1	A	45	45	885	display and territorial
40001_VP_0351_b	22/04/2019	18:50	4	GP	1	B	60	60	1259	
40001_VP_0352_a	22/04/2019	18:50	4	GP	1	A	45	45	986	display and territorial
40001_VP_0352_b	22/04/2019	18:50	4	GP	1	B	90	90	1223	
40001_VP_0353	22/04/2019	18:51	4	GP	2	B	60	120	1396	display and territorial
40001_VP_0354	22/04/2019	19:04	4	GJ	2	A	60	120	1256	
40001_VP_0355	22/04/2019	19:05	4	GJ	2	A	75	150	1439	
40001_VP_0356	22/04/2019	19:28	4	GP	19	B	165	3135	3795	
40001_VP_0357	22/04/2019	19:40	4	NX	1	A	30	30	268	
40001_VP_0358	22/04/2019	19:44	4	NX	1	A	120	120	1987	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0359	24/04/2019	14:39	3	NX	2	A	45	90	718	landed
40001_VP_0360	24/04/2019	14:48	3	NX	5	A	75	375	1236	displays and territorial
40001_VP_0361	24/04/2019	14:54	3	NX	1	B	105	105	3169	attacked 2HG
40001_VP_0362	24/04/2019	15:14	3	NX	1	A	15	15	225	landed
40001_VP_0363	24/04/2019	15:14	3	NX	1	A	75	75	1248	hunting
40001_VP_0364	24/04/2019	15:27	3	NX	1	A	105	105	1993	hunting
40001_VP_0365	24/04/2019	15:52	3	NX	1	A	90	90	1020	landed
40001_VP_0366	24/04/2019	15:54	3	NX	1	A	15	15	114	
40001_VP_0367	24/04/2019	15:59	3	NX	1	A	15	15	192	
40001_VP_0368	24/04/2019	16:16	3	NX	1	A	15	15	438	territorial
40001_VP_0369	24/04/2019	16:16	3	NX	1	A	30	30	546	territorial
40001_VP_0370_a	24/04/2019	16:35	3	NX	1	B	30	30	860	hunting
40001_VP_0370_b	24/04/2019	16:35	3	NX	1	A	15	15	508	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0371	24/04/2019	16:41	3	NX	1	A	75	75	1471	
40001_VP_0372	24/04/2019	16:41	3	NX	1	A	150	150	2387	
40001_VP_0373	24/04/2019	16:48	3	GJ	2	A	15	30	500	
40001_VP_0374	24/04/2019	16:52	3	NX	1	B	45	45	1377	
40001_VP_0375	24/04/2019	16:57	3	NX	1	A	150	150	2905	
40001_VP_0376_a	24/04/2019	17:03	3	NX	1	B	105	105	2199	
40001_VP_0376_b	24/04/2019	17:03	3	NX	2	A	30	60	508	
40001_VP_0377	07/05/2019	09:03	3	GJ	1	A	30	30	457	
40001_VP_0378	07/05/2019	09:22	3	NX	1	A	30	30	398	
40001_VP_0379_a	07/05/2019	09:36	3	BV	1	A	45	45	1718	Struggling into wind then avoided windfarm.
40001_VP_0379_b	07/05/2019	09:36	3	BV	1	B	450	450	7836	
40001_VP_0380	07/05/2019	09:49	3	GJ	2	A	15	30	1243	
40001_VP_0381	07/05/2019	09:46	3	NX	1	B	110	110	438	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0383	07/05/2019	10:03	3	NX	1	A	15	15	309	Landed
40001_VP_0384	07/05/2019	10:21	3	NX	1	A	30	30	426	
40001_VP_0385	07/05/2019	10:44	3	PG	42	B	240	10080	3392	
40001_VP_0386	07/05/2019	10:50	3	NX	1	B	345	345	2274	
40001_VP_0387_a	07/05/2019	11:03	3	NX	1	A	45	45	631	
40001_VP_0387_b	07/05/2019	11:03	3	NX	1	B	45	45	516	
40001_VP_0388	07/05/2019	11:21	3	HH	1	A	15	15	270	Lost behind plantation
40001_VP_0389_a	07/05/2019	11:26	3	NX	1	B	405	405	2306	
40001_VP_0389_b	07/05/2019	11:26	3	NX	1	C	60	60	1761	
40001_VP_0390	07/05/2019	11:54	3	NX	1	A	30	30	390	
40001_VP_0391	07/05/2019	11:58	3	NX	1	A	45	45	750	
40001_VP_0392_a	07/05/2019	12:38	2	HH	1	A	15	15	116	Male hunting
40001_VP_0392_b	07/05/2019	12:38	2	HH	1	B	15	15	408	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0392_c	07/05/2019	12:38	2	HH	1	A	135	135	1063	
40001_VP_0393	07/05/2019	15:22	2	PG	6	B	285	1710	3935	Rerouted around turbines
40001_VP_0394	08/05/2019	09:36	1	EA	1	A	75	75	583	Landed, mobbed by HC and GB
40001_VP_0395_a	08/05/2019	09:39	1	EA	1	A	240	240	3467	
40001_VP_0395_b	08/05/2019	09:39	1	EA	1	B	135	135	474	
40001_VP_0396_a	08/05/2019	10:06	1	GJ	1	A	15	15	337	
40001_VP_0396_b	08/05/2019	10:06	1	GJ	1	B	90	90	1407	
40001_VP_0397	08/05/2019	10:42	1	DN	1	B	180	180	1558	
40001_VP_0398	08/05/2019	11:22	1	NX	1	A	105	105	2829	
40001_VP_0399	08/05/2019	14:06	1	NX	1	A	60	60	1173	
40001_VP_0400_a	08/05/2019	14:29	1	NX	1	B	45	45	501	
40001_VP_0400_b	08/05/2019	14:29	1	NX	1	A	60	60	481	
40001_VP_0400_c	08/05/2019	14:29	1	NX	1	B	30	30	591	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0400_d	08/05/2019	14:29	1	NX	1	A	45	45	393	
40001_VP_0401_a	08/05/2019	14:29	1	NX	2	A	60	120	583	Display flight
40001_VP_0401_b	08/05/2019	14:29	1	NX	2	B	45	90	410	
40001_VP_0401_c	08/05/2019	14:29	1	NX	2	A	45	90	559	
40001_VP_0402	09/05/2019	17:10	8	NX	2	A	15	30	393	
40001_VP_0403_a	09/05/2019	17:24	8	ML	1	A	45	45	546	Male, circling and some display
40001_VP_0403_b	09/05/2019	17:24	8	ML	1	B	300	300	2309	
40001_VP_0404_a	09/05/2019	17:24	8	NX	1	A	30	30	122	
40001_VP_0404_b	09/05/2019	17:24	8	NX	1	B	15	15	419	Followed ML out of view
40001_VP_0405_a	09/05/2019	17:33	8	NX	2	A	15	30	715	
40001_VP_0405_b	09/05/2019	17:33	8	NX	2	B	30	60	648	
40001_VP_0406_a	09/05/2019	17:36	8	NX	1	B	150	150	4093	
40001_VP_0406_b	09/05/2019	17:36	8	NX	1	A	90	90	495	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0407	09/05/2019	17:50	8	NX	1	A	90	90	2059	
40001_VP_0408	09/05/2019	17:51	8	NX	1	A	30	30	727	
40001_VP_0409	09/05/2019	17:54	8	NX	2	B	165	330	2181	
40001_VP_0410	09/05/2019	17:58	8	NX	2	B	195	390	1498	
40001_VP_0411_a	09/05/2019	18:08	8	NX	2	B	90	180	986	
40001_VP_0411_b	09/05/2019	18:08	8	NX	2	A	60	120	173	
40001_VP_0412_a	09/05/2019	18:10	8	RH	1	B	440	440	12974	Circling, some display
40001_VP_0412_b	09/05/2019	18:10	8	RH	1	C	120	120	482	
40001_VP_0412_c	09/05/2019	18:10	8	RH	1	D	45	45	1708	
40001_VP_0413	09/05/2019	18:29	8	RH	1	B	150	150	2404	
40001_VP_0414_a	09/05/2019	19:00	8	EA	1	B	225	225	1466	
40001_VP_0414_b	09/05/2019	19:00	8	EA	1	C	150	150	1949	
40001_VP_0414_c	09/05/2019	19:00	8	EA	1	D	135	135	3491	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0415	09/05/2019	19:04	8	EA	1	C	150	150	2073	
40001_VP_0416_a	09/05/2019	19:05	8	BV	1	C	30	30	232	
40001_VP_0416_b	09/05/2019	19:05	8	BV	1	D	30	30	1184	
40001_VP_0417_a	09/05/2019	19:25	8	NX	1	A	30	30	303	
40001_VP_0417_b	09/05/2019	19:25	8	NX	1	B	90	90	674	
40001_VP_0417_c	09/05/2019	19:25	8	NX	1	A	30	30	406	
40001_VP_0418	09/05/2019	19:38	8	NX	1	A	90	90	1847	
40001_VP_0419	09/05/2019	19:38	8	NX	1	A	150	150	1663	
40001_VP_0420_a	09/05/2019	19:48	8	RH	1	B	60	60	838	
40001_VP_0420_b	09/05/2019	19:48	8	RH	1	C	105	105	2477	
40001_VP_0421	09/05/2019	19:48	8	RH	1	C	165	165	3213	Associating with VP_0420
40001_VP_0422_a	09/05/2019	19:59	8	CN	2	B	75	150	601	
40001_VP_0422_b	09/05/2019	19:59	8	CN	2	A	15	30	440	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0423_a	09/05/2019	20:00	8	RH	2	B	90	180	3395	Landed.
40001_VP_0423_b	09/05/2019	20:00	8	RH	2	A	30	60	338	
40001_VP_0424	09/05/2019	20:08	8	RH	1	B	105	105	1681	
40001_VP_0425_a	09/05/2019	15:50	8	NX	1	B	315	315	5199	Some display flight, attacking HG
40001_VP_0425_b	09/05/2019	15:50	8	NX	1	C	135	135	2391	
40001_VP_0425_c	09/05/2019	15:50	8	NX	1	B	150	150	4471	
40001_VP_0425_d	09/05/2019	15:50	8	NX	1	C	180	180	1208	
40001_VP_0426_a	09/05/2019	15:57	8	NX	1	B	120	120	1893	Associating with VP-0425
40001_VP_0426_b	09/05/2019	16:57	8	NX	1	C	165	165	853	
40001_VP_0427	09/05/2019	14:50	8	RH	1	B	75	75	1875	
40001_VP_0428_a	09/05/2019	15:36	8	EA	1	C	135	135	1653	Display flight and gliding
40001_VP_0428_b	09/05/2019	15:36	8	EA	1	B	120	120	2596	
40001_VP_0429	09/05/2019	15:51	8	NX	1	A	60	60	872	Attacked GB



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0430	09/05/2019	16:05	8	HH	1	A	120	120	1222	Adult male hunting
40001_VP_0431_a	09/05/2019	16:21	8	NX	2	A	15	30	33	
40001_VP_0431_b	09/05/2019	16:21	8	NX	2	B	135	270	2165	
40001_VP_0431_c	09/05/2019	16:21	8	NX	2	C	165	330	1487	
40001_VP_0432	10/05/2019	18:49	2	NX	1	A	90	90	1741	
40001_VP_0433_a	10/05/2019	19:11	2	NX	1	B	30	30	773	
40001_VP_0433_b	10/05/2019	19:11	2	NX	1	C	30	30	1176	
40001_VP_0433_c	10/05/2019	19:11	2	NX	1	D	315	315	1452	
40001_VP_0434_a	10/05/2019	19:45	2	RH	2	C	60	120	917	
40001_VP_0434_b	10/05/2019	19:45	2	RH	2	B	165	330	2582	
40001_VP_0434_c	10/05/2019	19:45	2	RH	2	A	30	60	620	
40001_VP_0435_a	10/05/2019	19:45	2	RH	1	C	75	75	1306	
40001_VP_0435_b	10/05/2019	19:45	2	RH	1	B	165	165	2719	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0435_c	10/05/2019	19:45	2	RH	1	A	30	30	188	
40001_VP_0436	10/05/2019	19:55	2	RH	1	B	145	145	3568	No height changes given, all inputted at B
40001_VP_0437	10/05/2019	20:20	2	NX	1	A	60	60	799	
40001_VP_0438	10/05/2019	20:28	2	NX	1	B	60	60	1547	
40001_VP_0439	11/05/2019	17:17	3	NX	1	A	30	30	500	
40001_VP_0440	11/05/2019	17:26	3	NX	1	A	15	15	236	
40001_VP_0441	11/05/2019	17:27	3	NX	1	A	45	45	727	
40001_VP_0442	11/05/2019	17:36	3	WS	2	A	60	120	841	
40001_VP_0443	11/05/2019	17:38	3	NX	2	A	75	150	725	
40001_VP_0444	11/05/2019	17:38	3	NX	2	A	120	240	1740	
40001_VP_0445	11/05/2019	17:47	3	EA	1	A	75	75	1308	display
40001_VP_0446	11/05/2019	17:52	3	NX	2	A	60	120	805	
40001_VP_0447	11/05/2019	18:12	3	NX	1	A	75	75	1554	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0448	11/05/2019	18:38	3	HH	1	A	45	45	322	
40001_VP_0449	11/05/2019	18:39	3	NX	2	A	45	90	804	
40001_VP_0450	11/05/2019	18:39	3	NX	1	A	120	120	2471	
40001_VP_0451	11/05/2019	18:45	3	NX	2	A	105	210	743	
40001_VP_0452	11/05/2019	18:45	3	NX	1	A	75	75	973	
40001_VP_0453	11/05/2019	18:48	3	NX	1	A	135	135	1382	
40001_VP_0454	11/05/2019	19:15	3	NX	1	A	30	30	265	
40001_VP_0455_a	11/05/2019	19:37	3	NX	1	A	90	90	379	
40001_VP_0455_b	11/05/2019	19:37	3	NX	1	B	30	30	824	
40001_VP_0455_c	11/05/2019	19:37	3	NX	1	A	45	45	193	
40001_VP_0456_a	11/05/2019	19:37	3	NX	1	A	90	90	448	
40001_VP_0456_b	11/05/2019	19:37	3	NX	1	B	45	45	846	
40001_VP_0457	11/05/2019	19:47	3	GJ	2	A	135	270	2116	landed, alarming at surveyor



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0458	11/05/2019	06:35	5	CN	6	A	15	90	1081	
40001_VP_0459	11/05/2019	07:51	5	CN	5	A	135	675	1245	
40001_VP_0460	11/05/2019	07:53	5	GJ	2	A	15	30	768	Flew Off', but no seconds or height band(s) recorded.
40001_VP_0461_a	11/05/2019	08:01	5	RH	1	A	60	60	1052	
40001_VP_0461_b	11/05/2019	08:01	5	RH	1	B	75	75	2040	
40001_VP_0461_c	11/05/2019	08:01	5	RH	1	C	45	45	1417	
40001_VP_0462_a	11/05/2019	08:10	5	CN	11	A	90	990	828	
40001_VP_0462_b	11/05/2019	08:10	5	CN	11	B	105	1155	733	
40001_VP_0462_c	11/05/2019	08:10	5	CN	11	C	150	1650	2502	
40001_VP_0463_a	11/05/2019	08:25	5	RH	2	B	60	120	911	
40001_VP_0463_b	11/05/2019	08:25	5	RH	2	A	15	30	145	
40001_VP_0464_a	11/05/2019	08:38	5	CN	5	B	30	150	343	
40001_VP_0464_b	11/05/2019	08:38	5	CN	5	A	30	150	648	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0465_a	11/05/2019	08:53	5	RH	2	B	150	300	4202	
40001_VP_0465_b	11/05/2019	08:53	5	RH	2	A	15	30	177	
40001_VP_0466	02/07/2019	06:11	8	BV	1	A	45	45	1073	
40001_VP_0467	02/07/2019	19:54	14	EA	1	B	75	75	1242	adult. Hunting, mobbed by 3HG
40001_VP_0468	30/06/2019	17:11	14	HH	1	A	45	45	740	Female, hunting
40001_VP_0469	14/07/2019	12:43	14	HH	1	B	75	75	1497	Ringtail lost south in direct flight
40001_VP_0470_a	14/07/2019	12:45	14	NX	1	B	105	105	2121	hanging in breeze
40001_VP_0470_b	14/07/2019	12:45	14	NX	1	C	90	90	2005	
40001_VP_0471_a	14/07/2019	13:00	14	EA	1	C	45	45	2059	distant soaring, lost south
40001_VP_0471_b	14/07/2019	13:00	14	EA	1	B	90	90	1334	
40001_VP_0471_c	14/07/2019	13:00	14	EA	1	A	30	30	195	
40001_VP_0472_a	14/07/2019	13:10	14	NX	1	B	45	45	1057	direct flight, lost low
40001_VP_0472_b	14/07/2019	13:10	14	NX	1	A	15	15	154	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0473_a	14/07/2019	13:56	14	EA	1	B	105	105	3152	
40001_VP_0473_b	14/07/2019	13:56	14	EA	1	C	180	180	2982	
40001_VP_0473_c	14/07/2019	13:56	14	EA	1	D	60	60	1067	
40001_VP_0474	14/07/2019	14:35	14	DN	2	A	15	30	352	low flight and landed
40001_VP_0475	14/07/2019	14:51	14	GP	1	A	15	15	260	low flight
40001_VP_0476_a	22/07/2019	19:27	8	BV	1	B	30	30	1162	Landed on loch
40001_VP_0476_b	22/07/2019	19:27	8	BV	1	A	15	15	143	
40001_VP_0477	22/07/2019	19:55	8	BV	1	B	45	45	1170	second bird
40001_VP_0478	25/07/2019	09:17	5	RH	1	B	45	45	847	
40001_VP_0479	25/07/2019	11:07	5	EA	1	C	60	60	1093	
40001_VP_0480_a	27/07/2019	14:22	14	BV	1	A	15	15	265	adult left Lochan
40001_VP_0480_b	27/07/2019	14:22	14	BV	1	B	45	45	1729	
40001_VP_0480_c	27/07/2019	14:22	14	BV	1	A	15	15	298	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0481	27/07/2019	15:04	14	GP	7	A	30	210	712	
40001_VP_0502	23/06/2019	05:07	2	RH	1	A	30	30	334	joined adults and chick and started calling
40001_VP_0503	23/06/2019	05:21	2	CN	3	B	75	225	1293	flying north
40001_VP_0504_a	23/06/2019	05:50	2	RH	1	B	15	15	1024	flying with another RH
40001_VP_0504_b	23/06/2019	05:50	2	RH	1	A	30	30	450	
40001_VP_0504_c	23/06/2019	05:50	2	RH	1	B	180	180	5512	
40001_VP_0505_a	23/06/2019	05:50	2	RH	1	B	15	15	1046	flying with another RH
40001_VP_0505_b	23/06/2019	05:50	2	RH	1	A	30	30	833	
40001_VP_0505_c	23/06/2019	05:50	2	RH	1	B	45	45	2435	
40001_VP_0505_d	23/06/2019	05:50	2	RH	1	A	45	45	308	
40001_VP_0506	23/06/2019	05:50	2	CN	1	B	90	90	1482	
40001_VP_0507_a	23/06/2019	06:14	2	RH	2	A	30	60	629	
40001_VP_0507_b	23/06/2019	06:14	2	RH	2	B	90	180	877	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0507_c	23/06/2019	06:14	2	RH	2	C	105	210	577	
40001_VP_0507_d	23/06/2019	06:14	2	RH	2	D	30	60	498	
40001_VP_0508_a	23/06/2019	06:18	2	RH	3	B	105	315	1483	flying 'non-directionally' then out to sea
40001_VP_0508_b	23/06/2019	06:18	2	RH	3	C	120	360	1888	
40001_VP_0508_c	23/06/2019	06:18	2	RH	3	D	30	90	1465	
40001_VP_0508_d	23/06/2019	06:18	2	RH	3	C	120	360	1108	
40001_VP_0509_a	23/06/2019	06:45	2	RH	2	B	45	90	418	
40001_VP_0509_b	23/06/2019	06:45	2	RH	2	A	30	60	436	
40001_VP_0510	23/06/2019	06:50	2	RH	1	B	75	75	2124	
40001_VP_0511	23/06/2019	07:10	2	GP	1	B	60	60	1482	
40001_VP_0512	23/06/2019	19:05	2	HH	1	A	225	225	1037	Male
40001_VP_0513_a	23/06/2019	19:45	2	RH	1	B	90	90	1127	NE towards sea calling
40001_VP_0513_b	23/06/2019	19:45	2	RH	1	C	105	105	2470	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0514_a	23/06/2019	19:46	2	NX	1	B	45	45	1425	
40001_VP_0514_b	23/06/2019	19:46	2	NX	1	A	45	45	352	
40001_VP_0515_a	23/06/2019	19:59	2	CN	1	B	15	15	538	
40001_VP_0515_b	23/06/2019	19:59	2	CN	1	C	45	45	459	
40001_VP_0515_c	23/06/2019	19:59	2	CN	1	B	15	15	397	
40001_VP_0516	23/06/2019	20:15	2	HH	1	B	195	195	3855	male carrying food - pass to female
40001_VP_0517_a	23/06/2019	20:17	2	HH	1	B	30	30	451	female, received food pass from male
40001_VP_0517_b	23/06/2019	20:17	2	HH	1	A	60	60	1323	
40001_VP_0518	23/06/2019	21:40	2	RH	2	A	15	30	167	Adults - briefly spotted returning to loch
40001_VP_0519_a	23/06/2019	21:44	2	GP	2	B	30	60	1772	
40001_VP_0519_b	23/06/2019	21:44	2	GP	2	C	30	60	1115	calling/singing
40001_VP_0520	19/06/2019	11:15	3	NX	1	A	45	45	604	landed
40001_VP_0521	19/06/2019	11:19	3	CN	2	B	75	150	1787	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0522	19/06/2019	11:19	3	NX	2	A	75	150	980	
40001_VP_0523_a	19/06/2019	11:24	3	NX	1	B	45	45	1122	
40001_VP_0523_b	19/06/2019	11:24	3	NX	1	A	60	60	716	
40001_VP_0524_a	19/06/2019	11:29	3	NX	1	B	30	30	408	
40001_VP_0524_b	19/06/2019	11:29	3	NX	1	A	30	30	439	
40001_VP_0524_c	19/06/2019	11:29	3	NX	1	B	30	30	459	
40001_VP_0524_d	19/06/2019	11:29	3	NX	1	A	15	15	424	
40001_VP_0525_a	19/06/2019	11:29	3	NX	1	B	45	45	984	
40001_VP_0525_b	19/06/2019	11:29	3	NX	1	A	30	30	343	
40001_VP_0526	19/06/2019	11:40	3	NX	1	B	60	60	1797	
40001_VP_0527_a	19/06/2019	11:45	3	NX	1	B	165	165	2316	
40001_VP_0527_b	19/06/2019	11:45	3	NX	1	A	15	15	70	
40001_VP_0528_a	19/06/2019	11:45	3	NX	1	B	135	135	2462	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0528_b	19/06/2019	11:45	3	NX	1	A	45	45	196	
40001_VP_0529	19/06/2019	11:49	3	NX	1	A	60	60	1248	
40001_VP_0530	19/06/2019	11:56	3	CN	1	C	75	75	2562	
40001_VP_0531_a	19/06/2019	12:00	3	NX	1	B	60	60	1787	
40001_VP_0531_b	19/06/2019	12:00	3	NX	1	A	30	30	100	
40001_VP_0532_a	19/06/2019	12:01	3	NX	1	A	45	45	590	
40001_VP_0532_b	19/06/2019	12:01	3	NX	1	B	15	15	100	
40001_VP_0532_c	19/06/2019	12:01	3	NX	1	A	15	15	119	
40001_VP_0533_a	19/06/2019	12:10	3	NX	1	C	30	30	1040	
40001_VP_0533_b	19/06/2019	12:10	3	NX	1	B	45	45	222	
40001_VP_0534	19/06/2019	12:24	3	NX	2	B	120	240	1728	height bands don't match notes, all inputted as B
40001_VP_0535_a	19/06/2019	12:30	3	NX	1	B	45	45	666	
40001_VP_0535_b	19/06/2019	12:30	3	NX	1	A	30	30	1244	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0536	19/06/2019	12:48	3	NX	1	B	60	60	1034	
40001_VP_0537_a	19/06/2019	12:55	3	NX	2	B	30	60	498	
40001_VP_0537_b	19/06/2019	12:55	3	NX	2	A	45	90	1146	
40001_VP_0538_a	19/06/2019	13:05	3	NX	1	A	60	60	563	
40001_VP_0538_b	19/06/2019	13:05	3	NX	1	B	30	30	1074	
40001_VP_0538_c	19/06/2019	13:05	3	NX	1	A	15	15	287	
40001_VP_0539	19/06/2019	13:30	3	RH	1	B	75	75	874	
40001_VP_0540_a	19/06/2019	13:32	3	NX	1	A	45	45	476	
40001_VP_0540_b	19/06/2019	13:32	3	NX	1	B	30	30	561	
40001_VP_0541	19/06/2019	13:50	3	CN	2	B	105	210	1116	
40001_VP_0542_a	19/06/2019	13:50	3	NX	3	B	15	45	277	
40001_VP_0542_b	19/06/2019	13:50	3	NX	3	A	30	90	764	
40001_VP_0543	19/06/2019	13:57	3	NX	1	A	45	45	362	landed on bog



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0544	22/06/2019	19:00	3	NX	1	A	30	30	353	
40001_VP_0545_a	22/06/2019	19:00	3	NX	1	B	45	45	1171	
40001_VP_0545_b	22/06/2019	19:00	3	NX	1	A	30	30	377	
40001_VP_0546_a	22/06/2019	19:03	3	NX	1	C	75	75	1720	
40001_VP_0546_b	22/06/2019	19:03	3	NX	1	D	30	30	419	
40001_VP_0547_a	22/06/2019	19:09	3	EA	1	D	345	345	4267	
40001_VP_0547_b	22/06/2019	19:09	3	EA	1	C	60	60	766	
40001_VP_0547_c	22/06/2019	19:09	3	EA	1	B	60	60	520	
40001_VP_0548	22/06/2019	19:09	3	CN	5	C	75	375	1888	No height change mapped
40001_VP_0549	22/06/2019	19:25	3	CN	3	C	75	225	981	
40001_VP_0550	22/06/2019	19:33	3	CN	1	B	60	60	497	
40001_VP_0551	22/06/2019	19:40	3	CN	10	D	165	1650	3760	
40001_VP_0552	22/06/2019	19:46	3	CN	2	C	90	180	2159	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0553	22/06/2019	19:47	3	CN	2	D	135	270	1682	
40001_VP_0554_a	22/06/2019	19:53	3	SE	1	B	30	30	547	hunting
40001_VP_0554_b	22/06/2019	19:53	3	SE	1	A	60	60	2163	
40001_VP_0555	22/06/2019	20:02	3	CN	2	C	75	150	1816	
40001_VP_0556_a	22/06/2019	20:05	3	NX	1	B	30	30	493	
40001_VP_0556_b	22/06/2019	20:05	3	NX	1	A	75	75	1006	
40001_VP_0557	22/06/2019	20:05	3	NX	1	A	60	60	1098	
40001_VP_0558	22/06/2019	20:19	3	WE	1	B	135	135	1835	lost behind hill
40001_VP_0559_a	22/06/2019	20:25	3	NX	2	B	30	60	594	
40001_VP_0559_b	22/06/2019	20:25	3	NX	2	A	15	30	104	
40001_VP_0560	22/06/2019	20:28	3	SE	1	A	135	135	2421	
40001_VP_0561	22/06/2019	20:35	3	CN	1	C	150	150	1658	
40001_VP_0562	22/06/2019	20:49	3	SE	1	A	360	360	2906	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0563	22/06/2019	20:53	3	NX	1	A	30	30	330	
40001_VP_0564	22/06/2019	21:11	3	NX	1	A	30	30	742	
40001_VP_0565_a	22/06/2019	21:13	3	NX	1	A	30	30	731	
40001_VP_0565_b	22/06/2019	21:13	3	NX	1	B	30	30	752	
40001_VP_0566	22/06/2019	21:16	3	RH	1	C	90	90	1851	
40001_VP_0567	22/06/2019	21:23	3	NX	1	A	90	90	1952	
40001_VP_0568	22/06/2019	21:26	3	NX	2	A	60	120	923	
40001_VP_0569_a	22/06/2019	21:29	3	NX	2	A	30	60	524	
40001_VP_0569_b	22/06/2019	21:29	3	NX	2	B	30	60	1219	
40001_VP_0569_c	22/06/2019	21:29	3	NX	2	A	45	90	623	
40001_VP_0570_a	22/06/2019	21:29	3	NX	1	A	30	30	551	
40001_VP_0570_b	22/06/2019	21:29	3	NX	1	B	60	60	961	
40001_VP_0571	22/06/2019	21:45	3	NX	1	A	15	15	288	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0572_a	22/06/2019	21:58	3	NX	1	B	45	45	1302	
40001_VP_0572_b	22/06/2019	21:58	3	NX	1	A	15	15	196	
40001_VP_0573_a	19/06/2019	05:18	4	RH	1	B	60	60	2167	
40001_VP_0573_b	19/06/2019	05:18	4	RH	1	A	30	30	328	fast descent to land on loch
40001_VP_0574	19/06/2019	05:28	4	RH	2	B	105	210	2094	flying at constant height within 20metres of each other
40001_VP_0575	19/06/2019	05:28	4	RH	1	B	120	120	1294	constant height
40001_VP_0576_a	19/06/2019	05:39	4	RH	2	B	30	60	540	Non-directional but aiming east, 20m from each other
40001_VP_0576_b	19/06/2019	05:39	4	RH	2	C	165	330	2580	
40001_VP_0576_c	19/06/2019	05:39	4	RH	2	B	30	60	1343	
40001_VP_0576_d	19/06/2019	05:39	4	RH	2	A	30	60	294	
40001_VP_0577_a	19/06/2019	05:39	4	RH	2	C	195	390	3473	within 20m of each other
40001_VP_0577_b	19/06/2019	05:39	4	RH	2	B	60	120	351	
40001_VP_0578_a	19/06/2019	05:45	4	NX	1	B	60	60	989	chasing HG



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0578_a	19/06/2019	05:45	4	NX	1	B	60	60	435	chasing HG
40001_VP_0578_b	19/06/2019	05:45	4	NX	1	A	30	30	235	
40001_VP_0578_c	19/06/2019	05:45	4	NX	1	B	60	60	545	
40001_VP_0579_a	19/06/2019	05:53	4	RH	1	C	75	75	2084	circling, landing on loch
40001_VP_0579_b	19/06/2019	05:53	4	RH	1	B	45	45	567	
40001_VP_0579_c	19/06/2019	05:53	4	RH	1	A	15	15	743	
40001_VP_0580	19/06/2019	06:05	4	RH	1	C	105	105	1369	lost in valley
40001_VP_0581_a	19/06/2019	06:20	4	RH	2	C	150	300	2122	flying and calling, landed on loch
40001_VP_0581_b	19/06/2019	06:20	4	RH	2	B	105	210	2868	
40001_VP_0581_c	19/06/2019	06:20	4	RH	2	A	30	60	374	
40001_VP_0582_a	19/06/2019	06:42	4	RH	1	C	75	75	2355	
40001_VP_0582_b	19/06/2019	06:42	4	RH	1	B	165	165	4401	
40001_VP_0583_a	19/06/2019	07:03	4	RH	1	C	180	180	2255	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0583_b	19/06/2019	07:03	4	RH	1	D	60	60	998	
40001_VP_0583_c	19/06/2019	07:03	4	RH	1	C	45	45	991	
40001_VP_0584_a	19/06/2019	07:10	4	NX	1	A	45	45	534	stealing food from GB to feed fledgling
40001_VP_0584_b	19/06/2019	07:10	4	NX	1	B	30	30	344	
40001_VP_0584_c	19/06/2019	07:10	4	NX	1	A	15	15	130	
40001_VP_0585_a	19/06/2019	07:12	4	NX	1	A	45	45	673	juvenile waiting to be fed by adult
40001_VP_0585_b	19/06/2019	07:12	4	NX	1	B	15	15	203	
40001_VP_0585_c	19/06/2019	07:12	4	NX	1	A	30	30	193	
40001_VP_0586_a	19/06/2019	07:22	4	SE	1	B	150	150	2539	mobbed by HC and RN
40001_VP_0586_b	19/06/2019	07:22	4	SE	1	A	30	30	93	
40001_VP_0586_c	19/06/2019	07:22	4	SE	1	B	90	90	920	
40001_VP_0586_d	19/06/2019	07:22	4	SE	1	C	30	30	556	
40001_VP_0586_e	19/06/2019	07:22	4	SE	1	B	15	15	240	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0587_a	19/06/2019	07:38	4	NX	1	B	15	15	333	interactions with GB
40001_VP_0587_b	19/06/2019	07:38	4	NX	1	A	30	30	300	
40001_VP_0587_c	19/06/2019	07:38	4	NX	1	B	30	30	224	
40001_VP_0588_a	19/06/2019	07:40	4	NX	1	B	30	30	447	
40001_VP_0588_b	19/06/2019	07:40	4	NX	1	A	30	30	562	
40001_VP_0589_a	19/06/2019	07:45	4	NX	1	B	90	90	802	
40001_VP_0589_b	19/06/2019	07:45	4	NX	1	C	30	30	1358	
40001_VP_0589_c	19/06/2019	07:45	4	NX	1	B	15	15	589	
40001_VP_0589_d	19/06/2019	07:45	4	NX	1	A	30	30	192	
40001_VP_0590	19/06/2019	07:48	4	GJ	5	B	105	525	1813	
40001_VP_0591_a	23/06/2019	12:02	5	NX	4	B	60	240	2601	pairs gliding in thermals
40001_VP_0591_b	23/06/2019	12:02	5	NX	4	C	60	240	1773	
40001_VP_0591_c	23/06/2019	12:02	5	NX	4	D	105	420	3222	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0592	23/06/2019	12:02	5	CN	2	A	105	210	707	hunting over loch then landed on rock
40001_VP_0593_a	23/06/2019	12:09	5	CN	1	A	15	15	815	
40001_VP_0593_b	23/06/2019	12:09	5	CN	1	B	15	15	240	
40001_VP_0593_c	23/06/2019	12:09	5	CN	1	A	30	30	574	
40001_VP_0594	23/06/2019	12:17	5	CN	20	A	135	2700	850	group hunting over loch
40001_VP_0595_a	23/06/2019	12:31	5	RH	1	B	30	30	1676	
40001_VP_0595_b	23/06/2019	12:31	5	RH	1	C	120	120	1808	
40001_VP_0596	23/06/2019	12:41	5	CN	9	A	105	945	1040	
40001_VP_0597_a	23/06/2019	12:51	5	NX	1	B	45	45	816	
40001_VP_0597_b	23/06/2019	12:51	5	NX	1	A	15	15	392	
40001_VP_0597_c	23/06/2019	12:51	5	NX	1	B	30	30	411	
40001_VP_0597_d	23/06/2019	12:51	5	NX	1	A	15	15	727	
40001_VP_0598	23/06/2019	12:55	5	CN	25	A	75	1875	1383	around loch and landing regularly on island



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0599_a	23/06/2019	13:18	5	CN	3	B	15	45	493	
40001_VP_0599_b	23/06/2019	13:18	5	CN	3	A	45	135	844	
40001_VP_0600_a	23/06/2019	13:28	5	CN	2	C	45	90	687	
40001_VP_0600_b	23/06/2019	13:28	5	CN	2	B	30	60	685	
40001_VP_0600_c	23/06/2019	13:28	5	CN	2	A	30	60	338	
40001_VP_0601_a	23/06/2019	13:47	5	CN	1	A	30	30	652	
40001_VP_0601_b	23/06/2019	13:47	5	CN	1	B	45	45	465	
40001_VP_0602_a	23/06/2019	13:58	5	HH	1	A	75	75	1570	male, hunting
40001_VP_0602_b	23/06/2019	13:58	5	HH	1	B	90	90	1105	
40001_VP_0602_c	23/06/2019	13:58	5	HH	1	A	60	60	680	
40001_VP_0603_a	23/06/2019	14:29	5	RH	1	B	165	165	1246	
40001_VP_0603_b	23/06/2019	14:29	5	RH	1	C	135	135	366	
40001_VP_0603_c	23/06/2019	14:29	5	RH	1	D	75	75	561	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0603_d	23/06/2019	14:29	5	RH	1	C	75	75	1211	
40001_VP_0604_a	23/06/2019	14:36	5	WE	1	C	210	210	1155	adult
40001_VP_0604_b	23/06/2019	14:36	5	WE	1	D	330	330	7337	
40001_VP_0605_a	23/06/2019	14:47	5	CN	10	A	60	600	712	
40001_VP_0605_b	23/06/2019	14:47	5	CN	10	B	30	300	970	
40001_VP_0606	23/06/2019	15:58	5	CN	1	A	90	90	1273	landed on island
40001_VP_0607	21/06/2019	12:00	8	CN	1	B	90	90	1371	
40001_VP_0608_a	21/06/2019	12:11	8	CN	2	D	45	90	2710	
40001_VP_0608_b	21/06/2019	12:11	8	CN	2	C	45	90	795	
40001_VP_0609	21/06/2019	12:22	8	CN	4	D	75	300	2334	
40001_VP_0610	21/06/2019	12:29	8	CN	1	D	90	90	2442	
40001_VP_0611	21/06/2019	12:39	8	CN	1	B	60	60	718	
40001_VP_0612	21/06/2019	12:53	8	CN	1	B	120	120	2304	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0613_a	21/06/2019	12:53	8	CN	1	B	60	60	687	
40001_VP_0613_b	21/06/2019	12:53	8	CN	1	A	30	30	758	
40001_VP_0614	21/06/2019	12:59	8	CN	9	A	75	675	1385	
40001_VP_0615_a	21/06/2019	13:09	8	HH	1	B	45	45	898	
40001_VP_0615_b	21/06/2019	13:09	8	HH	1	A	75	75	663	
40001_VP_0616_a	21/06/2019	13:27	8	RH	1	B	30	30	359	
40001_VP_0616_b	21/06/2019	13:27	8	RH	1	C	15	15	312	
40001_VP_0616_c	21/06/2019	13:27	8	RH	1	D	135	135	1364	
40001_VP_0617	21/06/2019	13:34	8	CN	8	D	135	1080	3204	
40001_VP_0618	21/06/2019	14:04	8	RH	1	D	150	150	4291	
40001_VP_0619_a	21/06/2019	14:15	8	CN	1	B	15	15	423	
40001_VP_0619_b	21/06/2019	14:15	8	CN	1	C	90	90	1949	
40001_VP_0620_a	21/06/2019	14:20	8	NX	2	A	30	60	332	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0620_b	21/06/2019	14:20	8	NX	2	B	30	60	795	
40001_VP_0620_c	21/06/2019	14:20	8	NX	2	A	30	60	356	
40001_VP_0620_d	21/06/2019	14:20	8	NX	2	B	75	150	1268	
40001_VP_0620_e	21/06/2019	14:20	8	NX	2	A	15	30	419	
40001_VP_0621_a	21/06/2019	14:38	8	CN	2	B	90	180	782	
40001_VP_0621_b	21/06/2019	14:38	8	CN	2	C	45	90	1801	
40001_VP_0622	21/06/2019	14:38	8	CN	1	B	60	60	265	
40001_VP_0623_a	21/06/2019	14:46	8	CN	2	B	30	60	379	
40001_VP_0623_b	21/06/2019	14:46	8	CN	2	C	75	150	849	
40001_VP_0623_c	21/06/2019	14:46	8	CN	2	D	30	60	3162	
40001_VP_0624	21/06/2019	14:56	8	EA	2	D	180	360	4610	circling on thermals
40001_VP_0625_a	21/06/2019	15:58	8	CN	2	B	60	120	150	
40001_VP_0625_b	21/06/2019	15:58	8	CN	2	A	15	30	149	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0626	21/06/2019	14:58	8	CN	1	B	90	90	1966	
40001_VP_0627_a	18/06/2019	17:15	14	RH	2	C	135	270	2218	flying within 20m of each other
40001_VP_0627_b	18/06/2019	17:15	14	RH	2	B	60	120	1355	
40001_VP_0628_a	18/06/2019	17:38	14	NX	1	B	15	15	88	
40001_VP_0628_b	18/06/2019	17:38	14	NX	1	A	120	120	774	
40001_VP_0628_c	18/06/2019	17:38	14	NX	1	B	45	45	709	
40001_VP_0628_d	18/06/2019	17:38	14	NX	1	A	45	45	231	
40001_VP_0629_a	18/06/2019	18:07	14	RH	2	B	60	120	937	landed on small lochan
40001_VP_0629_b	18/06/2019	18:07	14	RH	2	A	45	90	480	
40001_VP_0630	18/06/2019	18:16	14	RH	1	B	60	60	1216	
40001_VP_0631_a	18/06/2019	18:27	14	RH	3	B	30	90	1040	all within 30m of each other
40001_VP_0631_b	18/06/2019	18:27	14	RH	3	C	60	180	427	
40001_VP_0632_a	18/06/2019	18:28	14	RH	1	B	30	30	1322	calling, landed on loch

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0632_b	18/06/2019	18:28	14	RH	1	A	15	15	221	
40001_VP_0633	18/06/2019	18:33	14	GJ	5	C	90	450	2894	
40001_VP_0634_a	18/06/2019	19:53	14	RH	1	B	75	75	758	flew from loch
40001_VP_0634_b	18/06/2019	19:53	14	RH	1	C	30	30	436	
40001_VP_0634_c	18/06/2019	19:53	14	RH	1	A	75	75	557	
40001_VP_0635	18/06/2019	20:15	14	RH	1	A	75	75	915	landed on lochan
40001_VP_0636_a	18/06/2019	12:30	14	NX	3	B	60	180	572	
40001_VP_0636_b	18/06/2019	12:30	14	NX	3	A	30	90	572	
40001_VP_0637_a	18/06/2019	12:42	14	NX	2	B	30	60	703	
40001_VP_0637_b	18/06/2019	12:42	14	NX	2	A	15	30	98	
40001_VP_0638_a	18/06/2019	12:43	14	NX	1	B	30	30	855	
40001_VP_0638_b	18/06/2019	12:43	14	NX	1	A	30	30	171	
40001_VP_0639_a	18/06/2019	14:08	14	NX	1	B	60	60	2075	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0639_b	18/06/2019	14:08	14	NX	1	A	30	30	127	
40001_VP_0640_a	18/06/2019	14:17	14	RH	1	B	75	75	697	gradual descent out of sight behind hill
40001_VP_0640_b	18/06/2019	14:17	14	RH	1	C	60	60	594	
40001_VP_0640_c	18/06/2019	14:17	14	RH	1	B	45	45	468	
40001_VP_0641_a	18/06/2019	14:45	14	NX	1	B	90	90	1032	
40001_VP_0641_b	18/06/2019	14:45	14	NX	1	A	60	60	548	
40001_VP_0642_a	18/06/2019	15:15	14	NX	1	B	60	60	937	attempting to steal food from laridae spp
40001_VP_0642_b	18/06/2019	15:15	14	NX	1	A	30	30	267	
40001_VP_0642_c	18/06/2019	15:15	14	NX	1	B	60	60	530	
40001_VP_0642_d	18/06/2019	15:15	14	NX	1	C	15	15	321	
40001_VP_0642_e	18/06/2019	15:15	14	NX	1	B	60	60	956	
40001_VP_0642_f	18/06/2019	15:15	14	NX	1	A	15	15	185	
40001_VP_0643_a	20/06/2019	12:48	14	NX	1	B	60	60	1751	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0643_b	20/06/2019	12:48	14	NX	1	A	30	30	154	
40001_VP_0644_a	20/06/2019	12:58	14	NX	1	B	30	30	1727	
40001_VP_0644_b	20/06/2019	12:58	14	NX	1	A	30	30	313	
40001_VP_0645_a	20/06/2019	12:58	14	NX	1	B	75	75	1594	
40001_VP_0645_b	20/06/2019	12:58	14	NX	1	A	45	45	491	
40001_VP_0646	20/06/2019	13:05	14	GP	1	B	165	165	1977	
40001_VP_0647_a	20/06/2019	13:25	14	NX	1	B	15	15	236	
40001_VP_0647_b	20/06/2019	13:25	14	NX	1	A	15	15	285	
40001_VP_0647_c	20/06/2019	13:25	14	NX	1	B	30	30	1424	
40001_VP_0647_d	20/06/2019	13:25	14	NX	1	A	30	30	128	
40001_VP_0648_a	20/06/2019	13:45	14	NX	1	B	45	45	1027	
40001_VP_0648_b	20/06/2019	13:45	14	NX	1	A	15	15	392	
40001_VP_0649_a	20/06/2019	13:50	14	NX	1	B	15	15	863	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0649_b	20/06/2019	13:50	14	NX	1	A	15	15	370	
40001_VP_0649_c	20/06/2019	13:50	14	NX	1	B	15	15	432	
40001_VP_0650_a	20/06/2019	13:50	14	NX	1	B	15	15	96	
40001_VP_0650_b	20/06/2019	13:50	14	NX	1	A	15	15	383	
40001_VP_0650_c	20/06/2019	13:50	14	NX	1	B	60	60	1059	
40001_VP_0650_d	20/06/2019	13:50	14	NX	1	A	60	60	961	
40001_VP_0650_e	20/06/2019	13:50	14	NX	1	B	60	60	995	
40001_VP_0650_f	20/06/2019	13:50	14	NX	1	A	45	45	222	
40001_VP_0651_a	20/06/2019	14:20	14	NX	1	B	30	30	697	
40001_VP_0651_b	20/06/2019	14:20	14	NX	1	A	60	60	383	
40001_VP_0652_a	20/06/2019	14:30	14	NX	1	B	30	30	473	
40001_VP_0652_b	20/06/2019	14:30	14	NX	1	A	60	60	395	
40001_VP_0653_a	20/06/2019	14:36	14	RH	1	B	75	75	983	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0653_b	20/06/2019	14:36	14	RH	1	A	60	60	858	
40001_VP_0654_a	20/06/2019	15:10	14	RH	1	B	15	15	775	
40001_VP_0654_b	20/06/2019	15:10	14	RH	1	A	45	45	488	
40001_VP_0655	21/06/2019	05:30	14	GP	1	A	30	30	703	calling and landed
40001_VP_0656	21/06/2019	05:35	14	DN	1	A	45	45	672	sining and brief flight
40001_VP_0657	21/06/2019	05:59	14	NX	1	B	45	45	1464	
40001_VP_0658	21/06/2019	06:05	14	DN	1	A	30	30	273	brief calling flight, landed and continued singing
40001_VP_0659_a	21/06/2019	06:28	14	EA	1	D	45	45	771	
40001_VP_0659_b	21/06/2019	06:28	14	EA	1	C	15	15	169	
40001_VP_0659_c	21/06/2019	06:28	14	EA	1	B	30	30	243	
40001_VP_0659_d	21/06/2019	06:28	14	EA	1	A	15	15	229	landed on apex of mountain
40001_VP_0660	21/06/2019	06:38	14	RH	1	B	60	60	2445	
40001_VP_0661	21/06/2019	06:45	14	GP	2	A	30	60	466	brief flight, calling and singing when landed



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0662	21/06/2019	06:49	14	DN	1	B	75	75	1076	
40001_VP_0663_a	21/06/2019	07:11	14	RH	2	B	120	240	3009	flying, calling, landed on small lochan
40001_VP_0663_b	21/06/2019	07:11	14	RH	2	C	45	90	1069	
40001_VP_0663_c	21/06/2019	07:11	14	RH	2	B	90	180	3104	
40001_VP_0663_d	21/06/2019	07:11	14	RH	2	A	15	30	471	
40001_VP_0663_e	21/06/2019	07:11	14	RH	2	B	45	90	211	
40001_VP_0663_f	21/06/2019	07:11	14	RH	2	C	45	90	613	
40001_VP_0663_g	21/06/2019	07:11	14	RH	2	B	15	30	764	
40001_VP_0663_h	21/06/2019	07:11	14	RH	2	A	15	30	279	
40001_VP_0664_a	21/06/2019	07:25	14	RH	4	B	165	660	3879	calling, landed on one of medium-sized lochans
40001_VP_0664_b	21/06/2019	07:25	14	RH	4	C	45	180	1616	
40001_VP_0664_c	21/06/2019	07:25	14	RH	4	B	75	300	2391	
40001_VP_0664_d	21/06/2019	07:25	14	RH	4	A	45	180	315	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0665_a	21/06/2019	07:45	14	NX	4	B	30	120	1136	within 30m of each other, lost behind hill/ridge
40001_VP_0665_b	21/06/2019	07:45	14	NX	4	C	30	120	956	
40001_VP_0665_c	21/06/2019	07:45	14	NX	4	B	45	180	613	
40001_VP_0666_a	21/06/2019	07:55	14	RH	2	B	180	360	1397	
40001_VP_0666_b	21/06/2019	07:55	14	RH	2	C	30	60	1080	
40001_VP_0666_c	21/06/2019	07:55	14	RH	2	B	150	300	5126	
40001_VP_0667	21/06/2019	08:10	14	DN	1	A	75	75	1079	calling, then landed on heather mound
40001_VP_0668_a	21/06/2019	08:10	14	GP	2	A	60	120	489	flying and calling within 20m of each other
40001_VP_0668_b	21/06/2019	08:10	14	GP	2	B	60	120	2103	
40001_VP_0669	21/06/2019	07:04	14	GP	1	A	45	45	622	low flight, landed on heather mound, calling and preening
40001_VP_0670_a	03/07/2019	14:25	14	GP	1	B	15	15	227	calling close to loch
40001_VP_0670_b	03/07/2019	14:25	14	GP	1	A	60	60	1003	
40001_VP_0671_a	03/07/2019	14:31	14	NX	1	A	135	135	1707	mobbed by GB



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0671_b	03/07/2019	14:31	14	NX	1	B	30	30	200	
40001_VP_0671_c	03/07/2019	14:31	14	NX	1	A	15	15	891	
40001_VP_0671_d	03/07/2019	14:31	14	NX	1	B	15	15	689	
40001_VP_0671_e	03/07/2019	14:31	14	NX	1	A	15	15	601	
40001_VP_0671_f	03/07/2019	14:31	14	NX	1	B	15	15	478	
40001_VP_0671_g	03/07/2019	14:31	14	NX	1	A	15	15	778	
40001_VP_0672_a	03/07/2019	14:37	14	NX	1	A	90	90	545	Towards GB breeding colony then landed on mound
40001_VP_0672_b	03/07/2019	14:37	14	NX	1	B	30	30	613	
40001_VP_0672_c	03/07/2019	14:37	14	NX	1	A	15	15	467	
40001_VP_0672_d	03/07/2019	14:37	14	NX	1	B	15	15	1151	
40001_VP_0672_e	03/07/2019	14:37	14	NX	1	A	15	15	290	
40001_VP_0673	03/07/2019	14:39	14	GP	3	A	30	90	516	brief flight, landed, resumed singing
40001_VP_0674	03/07/2019	14:41	14	GP	2	A	45	90	926	landed, started to sing



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0675	03/07/2019	14:49	14	GP	2	A	75	150	1128	alarm calling and singing
40001_VP_0676_a	03/07/2019	14:54	14	NX	1	C	45	45	958	
40001_VP_0676_b	03/07/2019	14:54	14	NX	1	B	15	15	227	
40001_VP_0677_a	03/07/2019	14:47	14	NX	1	C	45	45	2163	
40001_VP_0677_b	03/07/2019	14:47	14	NX	1	B	60	60	507	
40001_VP_0677_c	03/07/2019	14:47	14	NX	1	A	15	15	336	
40001_VP_0677_d	03/07/2019	14:47	14	NX	1	B	30	30	861	
40001_VP_0678	03/07/2019	15:21	14	NX	2	B	45	90	1522	
40001_VP_0679	03/07/2019	15:25	14	GP	2	A	30	60	703	brief flight and singing. Landed and resumed calling
40001_VP_0680	03/07/2019	15:35	14	GP	2	A	75	150	866	landing, calling, singing
40001_VP_0681_a	03/07/2019	15:43	14	RH	1	B	105	105	1339	calling in flight
40001_VP_0681_b	03/07/2019	15:43	14	RH	1	C	15	15	603	
40001_VP_0682	03/07/2019	15:44	14	GP	1	A	30	30	622	calling in flight. Landed close to loch. Resumed signing.



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0683_a	03/07/2019	15:57	14	NX	1	A	60	60	833	
40001_VP_0683_b	03/07/2019	15:57	14	NX	1	B	30	30	716	
40001_VP_0683_c	03/07/2019	15:57	14	NX	1	A	60	60	473	
40001_VP_0684_a	03/07/2019	16:03	14	NX	1	A	30	30	702	
40001_VP_0684_b	03/07/2019	16:03	14	NX	1	B	45	45	697	
40001_VP_0685_a	03/07/2019	16:07	14	NX	2	A	45	90	528	stole food from HG, landed on heather mound
40001_VP_0685_b	03/07/2019	16:07	14	NX	2	B	30	60	295	
40001_VP_0685_c	03/07/2019	16:07	14	NX	2	A	15	30	338	
40001_VP_0685_d	03/07/2019	16:07	14	NX	2	B	15	30	363	
40001_VP_0685_e	03/07/2019	16:07	14	NX	2	A	30	60	470	
40001_VP_0685_f	03/07/2019	16:07	14	NX	2	B	30	60	382	
40001_VP_0685_g	03/07/2019	16:07	14	NX	2	A	45	90	538	
40001_VP_0686	03/07/2019	16:12	14	NX	1	A	75	75	1554	calling, landed on heather mound

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0687_a	03/07/2019	16:33	14	NX	1	A	45	45	719	chased and stole food from HG
40001_VP_0687_b	03/07/2019	16:33	14	NX	1	B	60	60	1701	
40001_VP_0687_c	03/07/2019	16:33	14	NX	1	A	45	45	475	
40001_VP_0687_d	03/07/2019	16:33	14	NX	1	B	75	75	629	
40001_VP_0687_e	03/07/2019	16:33	14	NX	1	A	60	60	828	
40001_VP_0688	03/07/2019	16:35	14	NX	1	A	45	45	979	
40001_VP_0689	03/07/2019	16:43	14	GP	1	A	45	45	714	landed by smaller pools. Calling.
40001_VP_0690_a	03/07/2019	17:01	14	NX	1	C	45	45	1235	
40001_VP_0690_b	03/07/2019	17:01	14	NX	1	B	30	30	934	
40001_VP_0691	03/06/2019	19:02	5	NX	2	A	45	90	700	
40001_VP_0692_a	03/06/2019	19:16	5	HH	1	B	75	75	1571	Adult male carrying food.
40001_VP_0692_b	03/06/2019	19:16	5	HH	1	A	45	45	398	Lost behind trees.
40001_VP_0693	03/06/2019	19:32	5	RH	1	B	225	225	3400	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0694	03/06/2019	19:38	5	NX	2	B	150	300	6819	
40001_VP_0695_a	03/06/2019	19:42	5	RH	1	B	105	105	1506	
40001_VP_0695_b	03/06/2019	19:42	5	RH	1	A	30	30	267	
40001_VP_0696	03/06/2019	20:03	5	HH	1	A	240	240	2590	foraging adult male, same bird as _0692a+b?
40001_VP_0697_a	03/06/2019	20:09	5	RH	2	B	270	540	4895	pair. Flying as if prospecting. Joined 2nd pair in loch.
40001_VP_0697_b	03/06/2019	20:09	5	RH	2	A	15	30	52	
40001_VP_0698	03/06/2019	20:41	5	HH	1	A	210	210	2940	male, same as previous birds?
40001_VP_0699	09/06/2019	08:01	8	GJ	2	A	45	90	911	
40001_VP_0700	09/06/2019	09:44	8	BV	1	A	45	45	1007	took off from loch
40001_VP_0701	09/06/2019	09:55	8	NX	1	A	45	45	1025	
40001_VP_0702	24/06/2019	12:17	5	HH	1	A	60	60	591	Female
40001_VP_0703	24/06/2019	12:17	5	CN	3	A	45	135	670	
40001_VP_0704_a	24/06/2019	12:23	5	EA	1	B	45	45	686	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0704_b	24/06/2019	12:23	5	EA	1	C	180	180	2898	
40001_VP_0704_c	24/06/2019	12:23	5	EA	1	B	45	45	1161	
40001_VP_0704_d	24/06/2019	12:23	5	EA	1	C	180	180	437	
40001_VP_0704_e	24/06/2019	12:23	5	EA	1	D	60	60	1155	
40001_VP_0704_f	24/06/2019	12:23	5	EA	1	C	75	75	417	
40001_VP_0704_g	24/06/2019	12:23	5	EA	1	B	45	45	740	
40001_VP_0705_a	24/06/2019	12:32	5	CN	10	B	60	600	659	
40001_VP_0705_b	24/06/2019	12:32	5	CN	10	A	30	300	604	
40001_VP_0706_a	24/06/2019	12:55	5	CN	7	B	30	210	219	
40001_VP_0706_b	24/06/2019	12:55	5	CN	7	A	45	315	654	
40001_VP_0707	24/06/2019	12:56	5	NX	1	B	60	60	915	
40001_VP_0708_a	24/06/2019	13:02	5	NX	3	B	15	45	342	
40001_VP_0708_b	24/06/2019	13:02	5	NX	3	A	45	135	291	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0708_c	24/06/2019	13:02	5	NX	3	B	165	495	1191	
40001_VP_0708_d	24/06/2019	13:02	5	NX	3	A	30	90	315	
40001_VP_0708_e	24/06/2019	13:02	5	NX	3	B	30	90	1281	
40001_VP_0708_f	24/06/2019	13:02	5	NX	3	A	30	90	975	
40001_VP_0709	24/06/2019	13:09	5	CN	9	A	45	405	647	
40001_VP_0710	24/06/2019	13:19	5	CN	3	A	45	135	1080	
40001_VP_0711_a	24/06/2019	13:34	5	NX	1	B	45	45	276	
40001_VP_0711_b	24/06/2019	13:34	5	NX	1	A	30	30	558	
40001_VP_0711_c	24/06/2019	13:34	5	NX	1	B	30	30	412	
40001_VP_0711_d	24/06/2019	13:34	5	NX	1	A	15	15	221	
40001_VP_0712_a	24/06/2019	13:34	5	NX	1	B	30	30	149	
40001_VP_0712_b	24/06/2019	13:34	5	NX	1	A	45	45	406	
40001_VP_0713_a	24/06/2019	13:42	5	NX	1	B	30	30	372	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0713_b	24/06/2019	13:42	5	NX	1	A	30	30	233	
40001_VP_0714_a	24/06/2019	13:47	5	RH	1	B	165	165	2493	Possibly onto known breeding loch.
40001_VP_0714_b	24/06/2019	13:47	5	RH	1	A	60	60	896	
40001_VP_0715_a	24/06/2019	13:59	5	HH	1	B	195	195	2090	Adult male with prey towards BG windfarm nesting area.
40001_VP_0715_b	24/06/2019	13:59	5	HH	1	A	60	60	722	
40001_VP_0716	24/06/2019	14:10	5	CN	1	A	135	135	576	
40001_VP_0717_a	24/06/2019	14:13	5	NX	1	B	30	30	282	
40001_VP_0717_b	24/06/2019	14:13	5	NX	1	A	15	15	98	
40001_VP_0718	24/06/2019	14:30	5	CN	3	A	45	135	358	
40001_VP_0719_a	24/06/2019	14:38	5	RH	1	B	195	195	3218	
40001_VP_0719_b	24/06/2019	14:38	5	RH	1	C	105	105	1432	
40001_VP_0719_c	24/06/2019	14:38	5	RH	1	B	60	60	1041	
40001_VP_0720	24/06/2019	14:45	5	RH	1	D	120	120	2167	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0721	24/06/2019	14:55	5	CN	5	A	75	375	1088	
40001_VP_0722_a	24/06/2019	15:07	5	CN	3	A	30	90	272	
40001_VP_0722_b	24/06/2019	15:07	5	CN	3	B	30	90	775	
40001_VP_0723	24/06/2019	15:13	5	HH	1	B	105	105	1510	Male
40001_VP_0724	06/07/2019	11:48	8	SE	1	A	45	45	414	
40001_VP_0725	06/07/2019	11:49	8	CN	1	A	75	75	1004	
40001_VP_0726	06/07/2019	12:03	8	CN	2	A	45	90	614	
40001_VP_0727_a	06/07/2019	12:26	8	CN	1	B	60	60	732	
40001_VP_0727_b	06/07/2019	12:26	8	CN	1	A	45	45	933	
40001_VP_0728_a	06/07/2019	12:31	8	CN	1	B	105	105	1406	
40001_VP_0728_b	06/07/2019	12:31	8	CN	1	A	15	15	492	
40001_VP_0729_a	06/07/2019	12:39	8	CN	1	B	15	15	1722	
40001_VP_0729_b	06/07/2019	12:39	8	CN	1	A	30	30	337	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0730_a	06/07/2019	12:39	8	CN	1	B	15	15	238	
40001_VP_0730_b	06/07/2019	12:39	8	CN	1	A	30	30	387	
40001_VP_0731	06/07/2019	12:50	8	HH	1	A	135	135	612	Adult female
40001_VP_0732_a	06/07/2019	12:57	8	CN	6	B	105	630	446	
40001_VP_0732_b	06/07/2019	12:57	8	CN	6	A	45	270	442	
40001_VP_0733_a	06/07/2019	13:01	8	BV	2	A	45	90	1526	Landed on loch
40001_VP_0733_b	06/07/2019	13:01	8	BV	2	B	15	30	459	
40001_VP_0733_c	06/07/2019	13:01	8	BV	2	A	15	30	446	
40001_VP_0734_a	06/07/2019	13:01	8	BV	1	A	45	45	500	
40001_VP_0734_b	06/07/2019	13:01	8	BV	1	B	15	15	549	Took off from loch.
40001_VP_0734_c	06/07/2019	13:01	8	BV	1	A	15	15	400	
40001_VP_0734_d	06/07/2019	13:01	8	BV	1	B	30	30	1141	
40001_VP_0735	06/07/2019	13:18	8	CN	4	C	105	420	2065	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0736_a	06/07/2019	13:22	8	CN	2	B	30	60	835	
40001_VP_0736_b	06/07/2019	13:22	8	CN	2	A	30	60	293	
40001_VP_0737	06/07/2019	13:23	8	CN	7	A	75	525	639	
40001_VP_0738	06/07/2019	13:32	8	NX	1	B	180	180	1632	
40001_VP_0739_a	06/07/2019	13:43	8	BV	5	A	45	225	838	
40001_VP_0739_b	06/07/2019	13:43	8	BV	5	B	180	900	5816	
40001_VP_0740	06/07/2019	13:43	8	HH	1	A	60	60	919	
40001_VP_0741	06/07/2019	13:45	8	CN	1	A	45	45	598	
40001_VP_0742	06/07/2019	13:45	8	BV	1	A	60	60	1782	
40001_VP_0743_a	06/07/2019	14:02	8	CN	2	C	45	90	462	
40001_VP_0743_b	06/07/2019	14:02	8	CN	2	B	105	210	1622	
40001_VP_0744_a	06/07/2019	14:11	8	CN	2	C	30	60	1625	
40001_VP_0744_b	06/07/2019	14:11	8	CN	2	B	105	210	1663	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0745	06/07/2019	14:11	8	CN	1	A	45	45	765	
40001_VP_0746_a	06/07/2019	14:12	8	CN	1	B	30	30	273	
40001_VP_0746_b	06/07/2019	14:12	8	CN	1	A	105	105	1844	
40001_VP_0747	06/07/2019	14:25	8	HH	1	A	150	150	1656	Adult male.
40001_VP_0748_a	06/07/2019	14:35	8	NX	1	D	165	165	4365	
40001_VP_0748_b	06/07/2019	14:35	8	NX	1	C	45	45	755	
40001_VP_0748_c	06/07/2019	14:35	8	NX	1	B	30	30	314	
40001_VP_0749	06/07/2019	14:36	8	EA	1	C	60	60	759	
40001_VP_0750_a	06/07/2019	14:37	8	RH	1	B	45	45	1221	
40001_VP_0750_b	06/07/2019	14:37	8	RH	1	C	150	150	1793	
40001_VP_0750_c	06/07/2019	14:37	8	RH	1	B	75	75	2155	
40001_VP_0751	22/06/2019	04:45	3	NX	1	A	30	30	547	
40001_VP_0752	22/06/2019	04:45	3	CN	1	B	90	90	935	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0753_a	22/06/2019	04:46	3	RH	2	B	60	120	1792	
40001_VP_0753_b	22/06/2019	04:46	3	RH	2	A	15	30	155	
40001_VP_0754_a	22/06/2019	04:47	3	NX	1	B	30	30	865	
40001_VP_0754_b	22/06/2019	04:47	3	NX	1	A	30	30	386	
40001_VP_0755_a	22/06/2019	05:10	3	CN	1	B	30	30	786	
40001_VP_0755_b	22/06/2019	05:10	3	CN	1	C	45	45	411	
40001_VP_0756	22/06/2019	05:15	3	NX	1	A	75	75	1113	
40001_VP_0757_a	22/06/2019	05:16	3	NX	1	B	75	75	1402	
40001_VP_0757_b	22/06/2019	05:16	3	NX	1	C	15	15	639	
40001_VP_0758_a	22/06/2019	05:24	3	CN	3	B	30	90	745	
40001_VP_0758_b	22/06/2019	05:24	3	CN	3	C	30	90	887	
40001_VP_0758_c	22/06/2019	05:24	3	CN	3	B	30	90	522	
40001_VP_0759	22/06/2019	05:30	3	NX	1	A	15	15	130	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0760	22/06/2019	05:35	3	GJ	14	B	180	2520	2620	
40001_VP_0761_a	22/06/2019	05:35	3	NX	1	B	30	30	724	
40001_VP_0761_b	22/06/2019	05:35	3	NX	1	C	30	30	620	
40001_VP_0761_c	22/06/2019	05:35	3	NX	1	B	60	60	1001	
40001_VP_0762_a	22/06/2019	05:44	3	CN	4	C	45	180	1229	
40001_VP_0762_b	22/06/2019	05:44	3	CN	4	D	135	540	1606	
40001_VP_0763_a	22/06/2019	05:45	3	NX	1	B	45	45	1392	
40001_VP_0763_b	22/06/2019	05:45	3	NX	1	A	15	15	224	
40001_VP_0764_a	22/06/2019	05:49	3	NX	1	A	30	30	301	
40001_VP_0764_b	22/06/2019	05:49	3	NX	1	B	30	30	362	
40001_VP_0765_a	22/06/2019	05:53	3	CN	1	C	30	30	702	
40001_VP_0765_b	22/06/2019	05:53	3	CN	1	D	90	90	1026	
40001_VP_0766_a	22/06/2019	05:59	3	NX	2	B	15	30	243	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0766_b	22/06/2019	05:59	3	NX	2	A	60	120	695	
40001_VP_0767_a	22/06/2019	06:08	3	RH	2	B	60	120	1074	
40001_VP_0767_b	22/06/2019	06:08	3	RH	2	A	30	60	522	
40001_VP_0768_a	22/06/2019	06:10	3	CN	1	B	30	30	451	
40001_VP_0768_b	22/06/2019	06:10	3	CN	1	C	75	75	372	
40001_VP_0768_c	22/06/2019	06:10	3	CN	1	D	45	45	1281	
40001_VP_0769_a	22/06/2019	06:18	3	NX	1	B	30	30	475	
40001_VP_0769_b	22/06/2019	06:18	3	NX	1	C	30	30	617	
40001_VP_0770_a	22/06/2019	06:21	3	NX	1	B	60	60	237	
40001_VP_0770_b	22/06/2019	06:21	3	NX	1	C	15	15	264	
40001_VP_0770_c	22/06/2019	06:21	3	NX	1	B	30	30	226	
40001_VP_0770_d	22/06/2019	06:21	3	NX	1	A	15	15	520	
40001_VP_0771_a	22/06/2019	06:27	3	NX	2	B	45	90	982	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0771_b	22/06/2019	06:27	3	NX	2	C	30	60	828	
40001_VP_0771_c	22/06/2019	06:27	3	NX	2	B	75	150	356	
40001_VP_0772_a	22/06/2019	06:28	3	NX	2	A	45	90	293	
40001_VP_0772_b	22/06/2019	06:28	3	NX	2	B	15	30	80	
40001_VP_0772_c	22/06/2019	06:28	3	NX	2	A	15	30	192	
40001_VP_0773_a	22/06/2019	06:28	3	NX	1	A	30	30	301	
40001_VP_0773_b	22/06/2019	06:28	3	NX	1	B	120	120	700	
40001_VP_0773_c	22/06/2019	06:28	3	NX	1	D	15	15	114	
40001_VP_0773_d	22/06/2019	06:28	3	NX	1	B	15	15	775	
40001_VP_0774_a	22/06/2019	06:30	3	CN	1	B	30	30	192	
40001_VP_0774_b	22/06/2019	06:30	3	CN	1	C	45	45	405	
40001_VP_0774_c	22/06/2019	06:30	3	CN	1	D	75	75	409	
40001_VP_0775	22/06/2019	06:36	3	NX	1	A	30	30	387	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0776	22/06/2019	06:48	3	NX	1	B	75	75	1492	
40001_VP_0777_a	22/06/2019	06:55	3	RH	1	B	105	105	1173	
40001_VP_0777_b	22/06/2019	06:55	3	RH	1	C	75	75	870	
40001_VP_0778	22/06/2019	06:56	3	NX	1	B	75	75	1139	
40001_VP_0779_a	22/06/2019	07:05	3	NX	1	B	60	60	1387	
40001_VP_0779_b	22/06/2019	07:05	3	NX	1	A	30	30	391	
40001_VP_0780_a	22/06/2019	07:15	3	HH	1	B	30	30	715	
40001_VP_0780_b	22/06/2019	07:15	3	HH	1	A	30	30	305	
40001_VP_0780_c	22/06/2019	07:15	3	HH	1	B	60	60	810	
40001_VP_0781_a	22/06/2019	07:20	3	NX	1	B	30	30	414	
40001_VP_0781_b	22/06/2019	07:20	3	NX	1	A	30	30	339	
40001_VP_0781_c	22/06/2019	07:20	3	NX	1	B	30	30	713	
40001_VP_0781_d	22/06/2019	07:20	3	NX	1	A	15	15	180	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0782	22/06/2019	07:20	3	NX	1	B	45	45	418	
40001_VP_0783_a	22/06/2019	07:21	3	NX	1	B	45	45	1615	
40001_VP_0783_b	22/06/2019	07:21	3	NX	1	A	15	15	264	
40001_VP_0784_a	22/06/2019	07:21	3	NX	2	B	90	180	1650	
40001_VP_0784_b	22/06/2019	07:21	3	NX	2	A	45	90	469	
40001_VP_0784_c	22/06/2019	07:21	3	NX	2	B	30	60	479	
40001_VP_0784_d	22/06/2019	07:21	3	NX	2	A	15	30	251	
40001_VP_0785_a	22/06/2019	07:30	3	NX	1	B	30	30	491	
40001_VP_0785_b	22/06/2019	07:30	3	NX	1	A	60	60	796	
40001_VP_0786_a	22/06/2019	07:36	3	NX	2	B	120	240	1981	
40001_VP_0786_b	22/06/2019	07:36	3	NX	2	A	30	60	219	
40001_VP_0786_c	22/06/2019	07:36	3	NX	2	B	150	300	644	
40001_VP_0786_d	22/06/2019	07:36	3	NX	2	A	15	30	677	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0787_a	22/06/2019	07:43	3	NX	1	B	30	30	1312	
40001_VP_0787_b	22/06/2019	07:43	3	NX	1	A	30	30	179	
40001_VP_0787_c	22/06/2019	07:43	3	NX	1	B	15	15	188	
40001_VP_0787_d	22/06/2019	07:43	3	NX	1	A	15	15	825	
40001_VP_0787_e	22/06/2019	07:43	3	NX	1	B	15	15	333	
40001_VP_0787_f	22/06/2019	07:43	3	NX	1	A	30	30	300	
40001_VP_0788_a	17/06/2019	15:00	4	NX	1	A	15	15	243	
40001_VP_0788_b	17/06/2019	15:00	4	NX	1	B	15	15	624	
40001_VP_0788_c	17/06/2019	15:00	4	NX	1	A	15	15	54	
40001_VP_0789_a	17/06/2019	15:05	4	EA	1	C	30	30	269	
40001_VP_0789_b	17/06/2019	15:05	4	EA	1	D	330	330	4275	
40001_VP_0790_a	17/06/2019	15:09	4	NX	1	B	45	45	360	
40001_VP_0790_b	17/06/2019	15:09	4	NX	1	A	30	30	751	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0790_c	17/06/2019	15:09	4	NX	1	B	30	30	480	
40001_VP_0791_a	17/06/2019	15:11	4	NX	1	B	30	30	404	
40001_VP_0791_b	17/06/2019	15:11	4	NX	1	A	15	15	667	
40001_VP_0791_c	17/06/2019	15:11	4	NX	1	B	15	15	303	
40001_VP_0792_a	17/06/2019	15:27	4	NX	1	A	30	30	354	
40001_VP_0792_b	17/06/2019	15:27	4	NX	1	B	60	60	352	
40001_VP_0792_c	17/06/2019	15:27	4	NX	1	A	30	30	375	
40001_VP_0793_a	17/06/2019	16:09	4	NX	1	B	45	45	396	
40001_VP_0793_b	17/06/2019	16:09	4	NX	1	C	60	60	1749	
40001_VP_0793_c	17/06/2019	16:09	4	NX	1	D	195	195	963	
40001_VP_0794_a	17/06/2019	16:14	4	NX	2	A	30	60	255	
40001_VP_0794_b	17/06/2019	16:14	4	NX	2	B	30	60	337	
40001_VP_0794_c	17/06/2019	16:14	4	NX	2	A	30	60	837	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0795_a	17/06/2019	16:29	4	NX	2	B	60	120	528	
40001_VP_0795_b	17/06/2019	16:29	4	NX	2	A	30	60	507	
40001_VP_0796_a	17/06/2019	16:36	4	NX	1	B	30	30	269	
40001_VP_0796_b	17/06/2019	16:36	4	NX	1	C	165	165	1163	
40001_VP_0796_c	17/06/2019	16:36	4	NX	1	D	90	90	934	
40001_VP_0797_a	17/06/2019	16:37	4	NX	1	D	165	165	1680	
40001_VP_0797_b	17/06/2019	16:37	4	NX	1	C	90	90	311	
40001_VP_0798	17/06/2019	16:50	4	RH	1	C	255	255	3723	
40001_VP_0799_a	17/06/2019	17:00	4	NX	1	B	60	60	305	
40001_VP_0799_b	17/06/2019	17:00	4	NX	1	A	30	30	337	
40001_VP_0800_a	17/06/2019	17:12	4	NX	1	A	15	15	219	
40001_VP_0800_b	17/06/2019	17:12	4	NX	1	B	60	60	533	
40001_VP_0800_c	17/06/2019	17:12	4	NX	1	A	75	75	293	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0801_a	17/06/2019	17:22	4	NX	1	B	60	60	425	
40001_VP_0801_b	17/06/2019	17:22	4	NX	1	C	105	105	1077	
40001_VP_0802	17/06/2019	17:22	4	NX	1	B	180	180	1617	
40001_VP_0803	17/06/2019	17:49	4	RH	1	B	165	165	1796	
40001_VP_0804_a	17/06/2019	17:50	4	GK	1	B	45	45	334	
40001_VP_0804_b	17/06/2019	17:50	4	GK	1	A	15	15	117	
40001_VP_0805	17/06/2019	17:55	4	GJ	7	B	180	1260	1903	
40001_VP_0806	12/06/2019	11:20	3	GK	1	A	75	75	919	
40001_VP_0807	12/06/2019	13:50	3	RH	2	B	45	90	2040	
40001_VP_0808	25/06/2019	08:10	5	HH	1	A	90	90	1738	
40001_VP_0809	25/06/2019	08:40	5	RH	2	B	60	120	1536	
40001_VP_0810	25/06/2019	09:05	5	GP	3	B	30	90	1035	
40001_VP_0811	22/06/2019	09:18	3	RH	2	B	60	120	2330	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0812	22/06/2019	10:33	3	RH	1	B	45	45	1864	
40001_VP_0813	22/06/2019	11:05	3	WE	1	D	75	75	3175	
40001_VP_0814_a	24/06/2019	20:10	8	BV	1	B	45	45	1448	
40001_VP_0814_b	24/06/2019	20:10	8	BV	1	A	15	15	37	
40001_VP_0815_a	24/06/2019	21:20	8	BV	2	B	45	90	1181	
40001_VP_0815_b	24/06/2019	21:20	8	BV	2	A	15	30	32	
40001_VP_0816	08/07/2019	14:31	2	HH	1	A	105	105	2063	
40001_VP_0817	09/07/2019	19:10	2	RH	3	B	75	225	2635	
40001_VP_0818_a	09/07/2019	20:05	2	GK	2	B	15	30	817	
40001_VP_0818_b	09/07/2019	20:05	2	GK	2	A	15	30	192	
40001_VP_0819	09/07/2019	20:20	2	GP	3	B	45	135	2050	
40001_VP_0820_a	14/07/2019	18:20	3	NX	2	A	30	60	610	
40001_VP_0820_b	14/07/2019	18:20	3	NX	2	B	15	30	76	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0820_c	14/07/2019	18:20	3	NX	2	A	30	60	147	
40001_VP_0821	14/07/2019	18:30	3	NX	2	A	105	210	1241	
40001_VP_0822	14/07/2019	20:05	3	NX	1	B	75	75	935	
40001_VP_0823	14/07/2019	20:35	3	NX	1	A	60	60	985	
40001_VP_0824	28/07/2019	14:05	14	GP	3	B	30	90	1134	
40001_VP_0825_a	10/07/2019	06:15	4	RH	3	B	30	90	455	
40001_VP_0825_b	10/07/2019	06:15	4	RH	3	A	15	45	1362	
40001_VP_0826	10/07/2019	07:10	4	RH	1	B	60	60	1662	
40001_VP_0827	10/07/2019	07:45	4	GK	1	B	45	45	1550	
40001_VP_0828	11/07/2019	20:00	4	GK	1	B	30	30	937	
40001_VP_0829	09/07/2019	12:55	5	DN	4	A	30	120	364	
40001_VP_0830	09/07/2019	14:04	5	ML	1	A	15	15	289	
40001_VP_0865	22/07/2019	10:25	8	HH	1	A	105	105	1099	Female hunting



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0866	24/07/2019	17:03	5	ML	1	A	15	15	353	
40001_VP_0867_a	24/07/2019	18:45	5	RH	1	B	30	30	770	
40001_VP_0867_b	24/07/2019	18:45	5	RH	1	A	15	15	530	
40001_VP_0868_a	10/07/2019	16:00	14	RH	1	B	150	150	2723	Landed out of sight
40001_VP_0868_b	10/07/2019	16:00	14	RH	1	A	15	15	298	
40001_VP_0869_a	10/07/2019	16:08	14	NX	1	B	285	285	3033	
40001_VP_0869_b	10/07/2019	16:08	14	NX	1	A	15	15	246	
40001_VP_0870	10/07/2019	16:09	14	GP	2	B	30	60	690	
40001_VP_0871	10/07/2019	16:26	14	RH	1	A	30	30	318	Landed out of sight
40001_VP_0872_a	10/07/2019	16:45	14	RH	1	A	30	30	561	
40001_VP_0872_b	10/07/2019	16:45	14	RH	1	B	75	75	2060	
40001_VP_0873	10/07/2019	18:26	14	RH	2	B	60	120	1074	
40001_VP_0874_a	14/07/2019	11:42	4	NX	1	B	150	150	3974	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0874_b	14/07/2019	11:42	4	NX	1	C	135	135	3162	
40001_VP_0875_a	14/07/2019	12:02	4	NX	1	B	255	255	4082	
40001_VP_0875_b	14/07/2019	12:02	4	NX	1	C	210	210	3200	
40001_VP_0875_c	14/07/2019	12:02	4	NX	1	B	45	45	329	
40001_VP_0875_d	14/07/2019	12:02	4	NX	1	A	15	15	147	
40001_VP_0876	14/07/2019	12:28	4	NX	1	A	45	45	1021	
40001_VP_0877_a	14/07/2019	12:44	4	NX	1	B	270	270	2918	
40001_VP_0877_b	14/07/2019	12:44	4	NX	1	C	270	270	3284	
40001_VP_0877_c	14/07/2019	12:44	4	NX	1	B	90	90	1393	
40001_VP_0878_a	14/07/2019	13:08	4	NX	1	B	255	255	3874	
40001_VP_0878_b	14/07/2019	13:08	4	NX	1	C	390	390	2411	
40001_VP_0878_c	14/07/2019	13:08	4	NX	1	B	90	90	1319	
40001_VP_0878_d	14/07/2019	13:08	4	NX	1	A	15	15	64	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1041_a	15/08/2019	12:17	4	NX	1	A	15	15	327	
40001_VP_1041_b	15/08/2019	12:17	4	NX	1	B	15	15	299	
40001_VP_1041_c	15/08/2019	12:17	4	NX	1	A	15	15	209	
40001_VP_1042_a	15/08/2019	12:51	4	NX	1	A	15	15	207	
40001_VP_1042_b	15/08/2019	12:51	4	NX	1	B	30	30	416	
40001_VP_1042_c	15/08/2019	12:51	4	NX	1	A	15	15	197	
40001_VP_1043	15/08/2019	13:13	4	GJ	24	B	45	1080	615	
40001_VP_1044	13/08/2019	14:27	5	EA	1	C	270	270	2677	adult hunting - height bands not mapped
40001_VP_1045	13/08/2019	16:49	5	EA	1	C	150	150	3329	adult hunting
40001_VP_1046_a	13/08/2019	17:51	5	NX	1	A	30	30	554	
40001_VP_1046_b	13/08/2019	17:51	5	NX	1	B	15	15	227	
40001_VP_1046_c	13/08/2019	17:51	5	NX	1	A	30	30	600	landed
40001_VP_1047_a	13/08/2019	17:56	5	NX	2	A	15	30	231	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1047_b	13/08/2019	17:56	5	NX	2	B	60	120	1097	
40001_VP_1048	13/08/2019	18:34	5	EA	1	B	120	120	1580	adult, hunting - height bands not given
40001_VP_1049_a	13/08/2019	19:02	5	NX	2	A	30	60	554	
40001_VP_1049_b	13/08/2019	19:02	5	NX	2	B	45	90	886	
40001_VP_1049_c	13/08/2019	19:02	5	NX	2	A	15	30	201	landed
40001_VP_1050_a	13/08/2019	19:15	5	NX	1	A	15	15	311	
40001_VP_1050_b	13/08/2019	19:15	5	NX	1	B	15	15	578	
40001_VP_1050_c	13/08/2019	19:15	5	NX	1	A	15	15	209	landed
40001_VP_1051_a	14/08/2019	07:22	8	RH	2	A	30	60	764	Assumed to leave loch
40001_VP_1051_b	14/08/2019	07:22	8	RH	2	B	45	90	686	
40001_VP_1051_c	14/08/2019	07:22	8	RH	2	C	45	90	841	
40001_VP_1052_a	14/08/2019	08:26	8	RH	2	B	30	60	738	
40001_VP_1052_b	14/08/2019	08:26	8	RH	2	A	30	60	664	Assumed to land on loch



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1053_a	14/08/2019	10:53	2	NX	2	B	15	30	429	
40001_VP_1053_b	14/08/2019	10:53	2	NX	2	A	15	30	972	
40001_VP_1053_c	14/08/2019	10:53	2	NX	2	B	30	60	646	
40001_VP_1054_a	14/08/2019	11:18	2	WE	1	A	30	30	506	subadult
40001_VP_1054_b	14/08/2019	11:18	2	WE	1	B	45	45	1009	
40001_VP_1054_c	14/08/2019	11:18	2	WE	1	C	75	75	1262	
40001_VP_1055_a	14/08/2019	12:33	2	EA	1	B	45	45	566	adult
40001_VP_1055_b	14/08/2019	12:33	2	EA	1	C	120	120	327	
40001_VP_1055_c	14/08/2019	12:33	2	EA	1	D	30	30	962	
40001_VP_1056	15/08/2019	09:00	14	EA	2	C	300	600	3234	adults hunting
40001_VP_1058_a	16/08/2019	14:27	3	NX	1	A	30	30	509	
40001_VP_1058_b	16/08/2019	14:27	3	NX	1	B	15	15	244	
40001_VP_1058_c	16/08/2019	14:27	3	NX	1	A	15	15	276	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1059_a	16/08/2019	14:56	3	NX	1	A	30	30	411	
40001_VP_1059_b	16/08/2019	14:56	3	NX	1	B	15	15	131	
40001_VP_1060	16/08/2019	15:09	3	NX	1	A	75	75	1166	
40001_VP_1061_a	16/08/2019	15:13	3	NX	2	A	30	60	259	
40001_VP_1061_b	16/08/2019	15:13	3	NX	2	B	45	90	1248	
40001_VP_1062	16/08/2019	17:10	3	NX	1	B	90	90	1586	
40001_VP_1063_a	16/08/2019	20:03	5	HH	1	B	30	30	551	adult female hunting
40001_VP_1063_b	16/08/2019	20:03	5	HH	1	A	45	45	1043	
40001_VP_1064	17/08/2019	12:11	8	RH	1	C	180	180	1808	
40001_VP_1065_a	21/08/2019	17:21	4	RH	2	A	15	30	267	
40001_VP_1065_b	21/08/2019	17:21	4	RH	2	B	45	90	1077	
40001_VP_1066	21/08/2019	17:29	4	GJ	6	A	135	810	2383	Landed
40001_VP_1067_a	21/08/2019	18:11	4	EA	1	A	15	15	352	Mobbed and forced low by RN



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1067_b	21/08/2019	18:11	4	EA	1	B	75	75	1571	
40001_VP_1067_c	21/08/2019	18:11	4	EA	1	A	30	30	254	
40001_VP_1068	21/08/2019	18:57	4	NX	1	A	60	60	733	
40001_VP_1069_a	21/08/2019	19:46	4	NX	1	A	15	15	393	
40001_VP_1069_b	21/08/2019	19:46	4	NX	1	B	45	45	708	
40001_VP_1069_c	21/08/2019	19:46	4	NX	1	A	30	30	426	
40001_VP_1070	22/08/2019	09:32	5	BV	1	B	90	90	1060	
40001_VP_1071_a	22/08/2019	09:56	5	RH	3	B	105	315	2154	
40001_VP_1071_b	22/08/2019	09:56	5	RH	3	A	15	45	152	landed
40001_VP_1072_a	22/08/2019	10:00	5	RH	2	B	75	150	2530	
40001_VP_1072_b	22/08/2019	10:00	5	RH	2	A	15	30	226	landed
40001_VP_1073	22/08/2019	10:37	5	RH	1	B	105	105	2189	
40001_VP_1074	22/08/2019	10:55	5	HH	1	A	15	15	549	male, hunting

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1075_a	22/08/2019	11:22	5	RH	2	A	15	30	135	off loch
40001_VP_1075_b	22/08/2019	11:22	5	RH	2	B	180	360	4220	
40001_VP_1076_a	22/08/2019	11:32	5	RH	1	B	120	120	2570	
40001_VP_1076_b	22/08/2019	11:32	5	RH	1	A	15	15	167	landed
40001_VP_1077	22/08/2019	11:35	5	NX	1	A	30	30	663	
40001_VP_1078	22/08/2019	11:45	5	HH	1	A	165	165	2899	male, hunting
40001_VP_1079	22/08/2019	11:51	5	ML	1	A	30	30	1060	male, hunting
40001_VP_1080	22/08/2019	12:01	5	RH	1	B	30	30	790	
40001_VP_1081	22/08/2019	12:02	5	RH	2	B	75	150	2444	
40001_VP_1082_a	22/08/2019	18:38	2	EA	1	B	60	60	369	hunting - no height band mapped
40001_VP_1082_b	22/08/2019	18:38	2	EA	1	A	15	15	84	landed
40001_VP_1083_a	22/08/2019	18:40	2	EA	1	A	15	15	197	hunting
40001_VP_1083_b	22/08/2019	18:40	2	EA	1	B	150	150	639	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1084_a	22/08/2019	19:11	2	HH	1	B	45	45	687	Juvenile
40001_VP_1084_b	22/08/2019	19:11	2	HH	1	A	30	30	319	
40001_VP_1085_a	23/08/2019	14:59	5	RH	1	A	60	60	851	
40001_VP_1085_b	23/08/2019	14:59	5	RH	1	B	30	30	358	
40001_VP_1086	23/08/2019	15:00	5	HH	1	A	255	255	1690	Ringtail, Hunting, struck and landed
40001_VP_1087	23/08/2019	15:09	5	HH	1	A	225	225	723	Ringtail, Hunting
40001_VP_1088	23/08/2019	16:38	5	HH	1	A	150	150	780	Hunting, Mobbed by ML, landed
40001_VP_1089	23/08/2019	16:40	5	ML	1	A	105	105	395	Mobbing HH (_1088)
40001_VP_1090	23/08/2019	16:41	5	ML	1	A	90	90	378	Mobbing HH (_1088), then hunting
40001_VP_1091	23/08/2019	16:41	5	HH	1	A	60	60	340	Hunting
40001_VP_1092	24/08/2019	09:03	3	NX	2	A	45	90	1260	
40001_VP_1093	24/08/2019	09:35	3	NX	1	A	30	30	719	
40001_VP_1094_a	24/08/2019	10:00	3	NX	1	B	15	15	219	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1094_b	24/08/2019	10:00	3	NX	1	A	60	60	335	
40001_VP_1095	24/08/2019	10:12	3	NX	1	A	75	75	1902	
40001_VP_1096	24/08/2019	10:25	3	NX	1	A	180	180	2563	
40001_VP_1097	24/08/2019	10:25	3	NX	2	A	60	120	973	
40001_VP_1098	24/08/2019	10:34	3	HH	1	A	180	180	2577	adult male, hunting
40001_VP_1099	24/08/2019	10:35	3	HH	1	A	225	225	2673	adult male, hunting, mobbed by RN
40001_VP_1100	24/08/2019	11:09	3	NX	1	A	165	165	1405	
40001_VP_1101	24/08/2019	11:19	3	NX	1	A	30	30	729	
40001_VP_1102	24/08/2019	11:28	3	NX	1	A	165	165	1352	
40001_VP_1103	24/08/2019	11:28	3	NX	1	A	120	120	1255	
40001_VP_1104	24/08/2019	11:42	3	NX	1	A	105	105	782	
40001_VP_1105	26/08/2019	09:26	4	RH	1	B	105	105	2906	
40001_VP_1106_a	24/08/2019	17:13	14	BV	1	B	30	30	1280	Landed out of sight



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1106_b	24/08/2019	17:13	14	BV	1	A	15	15	102	
40001_VP_1107	24/08/2019	17:29	14	RH	1	C	75	75	1207	
40001_VP_1108	24/08/2019	17:31	14	BV	2	B	90	180	1199	
40001_VP_1109_a	24/08/2019	17:37	14	NX	1	A	15	15	1094	
40001_VP_1109_b	24/08/2019	17:37	14	NX	1	B	90	90	392	
40001_VP_1110_a	24/08/2019	18:41	14	RH	1	A	15	15	99	
40001_VP_1110_b	24/08/2019	18:41	14	RH	1	B	135	135	1468	
40001_VP_1110_c	24/08/2019	18:41	14	RH	1	C	120	120	947	
40001_VP_1111_a	24/08/2019	19:01	14	BV	1	B	75	75	2076	
40001_VP_1111_b	24/08/2019	19:01	14	BV	1	C	60	60	774	
40001_VP_1112	24/08/2019	19:01	14	RH	1	B	105	105	2265	
40001_VP_1113_a	24/08/2019	19:09	14	RH	2	C	60	120	1641	
40001_VP_1113_b	24/08/2019	19:09	14	RH	2	B	45	90	545	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1113_c	24/08/2019	19:09	14	RH	2	C	45	90	506	
40001_VP_1114_a	24/08/2019	19:24	14	RH	1	B	60	60	1165	carrying fish
40001_VP_1114_b	24/08/2019	19:24	14	RH	1	A	15	15	197	landed
40001_VP_1115_a	24/08/2019	19:28	14	RH	1	A	15	15	304	Off loch
40001_VP_1115_b	24/08/2019	19:28	14	RH	1	B	135	135	2355	
40001_VP_1118	25/08/2019	10:47	14	GJ	6	A	60	360	1153	
40001_VP_1119	25/08/2019	12:08	14	EA	1	B	270	270	2989	
40001_VP_1120_a	25/08/2019	12:12	14	EA	1	B	150	150	1282	
40001_VP_1120_b	25/08/2019	12:12	14	EA	1	C	150	150	3894	
40001_VP_1120_c	25/08/2019	12:12	14	EA	1	B	45	45	1836	
40001_VP_1207	09/09/2019	14:16	2	ML	1	A	30	30	694	Male hunting.
40001_VP_1208	13/09/2019	08:03	2	ML	1	A	15	15	239	
40001_VP_1209_a	08/09/2019	19:39	3	GJ	22	C	60	1320	679	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1209_b	08/09/2019	19:39	3	GJ	22	B	135	2970	1844	
40001_VP_1210	08/09/2019	20:02	3	GJ	8	B	105	840	1394	
40001_VP_1211_a	11/09/2019	07:54	3	NX	1	B	30	30	244	Hunting adult
40001_VP_1211_b	11/09/2019	07:54	3	NX	1	A	30	30	163	
40001_VP_1211_c	11/09/2019	07:54	3	NX	1	B	30	30	319	
40001_VP_1212_a	11/09/2019	07:58	3	NX	1	B	45	45	963	Hunting adult
40001_VP_1212_b	11/09/2019	07:58	3	NX	1	A	15	15	320	
40001_VP_1212_c	11/09/2019	07:58	3	NX	1	B	45	45	621	
40001_VP_1213	11/09/2019	08:06	3	NX	2	B	45	90	1078	
40001_VP_1214	11/09/2019	08:12	3	NX	2	A	30	60	811	
40001_VP_1215	11/09/2019	08:30	3	GJ	5	B	45	225	884	
40001_VP_1216	11/09/2019	08:57	3	GJ	9	B	45	405	938	
40001_VP_1217	11/09/2019	09:10	3	NX	2	A	30	60	931	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1218	11/09/2019	10:03	3	NX	1	A	30	30	941	
40001_VP_1219_a	11/09/2019	10:08	3	NX	2	A	15	30	296	
40001_VP_1219_b	11/09/2019	10:08	3	NX	2	B	15	30	408	
40001_VP_1219_c	11/09/2019	10:08	3	NX	2	A	15	30	163	
40001_VP_1220_a	11/09/2019	10:20	3	NX	2	B	15	30	304	
40001_VP_1220_b	11/09/2019	10:20	3	NX	2	A	30	60	642	
40001_VP_1221	11/09/2019	10:21	3	GJ	7	B	60	420	865	
40001_VP_1222_a	11/09/2019	10:29	3	NX	2	A	60	120	1504	
40001_VP_1222_b	11/09/2019	10:29	3	NX	2	B	60	120	1012	
40001_VP_1223_a	12/09/2019	14:29	3	NX	1	B	15	15	153	
40001_VP_1223_b	12/09/2019	14:29	3	NX	1	A	15	15	434	
40001_VP_1223_c	12/09/2019	14:29	3	NX	1	B	75	75	1596	
40001_VP_1224_a	12/09/2019	15:22	3	NX	1	B	30	30	542	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1224_b	12/09/2019	15:22	3	NX	1	A	30	30	463	
40001_VP_1225	12/09/2019	15:41	3	NX	1	A	30	30	811	
40001_VP_1226	12/09/2019	15:44	3	NX	1	A	30	30	800	Mobbing RN
40001_VP_1227	12/09/2019	15:52	3	NX	1	A	45	45	827	
40001_VP_1228_a	09/09/2019	17:06	3	NX	1	B	15	15	200	Adult hunting
40001_VP_1228_b	09/09/2019	17:06	3	NX	1	A	30	30	308	
40001_VP_1228_c	09/09/2019	17:06	3	NX	1	B	15	15	204	
40001_VP_1228_d	09/09/2019	17:06	3	NX	1	A	15	15	174	
40001_VP_1229	09/09/2019	17:17	3	NX	1	B	45	45	1051	
40001_VP_1230	09/09/2019	17:25	3	GJ	42	B	45	1890	922	
40001_VP_1231	09/09/2019	18:13	3	NX	4	B	30	120	1101	
40001_VP_1232_a	11/09/2019	14:12	4	NX	2	A	30	60	632	
40001_VP_1232_b	11/09/2019	14:12	4	NX	2	B	15	30	309	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1233_a	11/09/2019	12:33	4	NX	1	A	15	15	232	
40001_VP_1233_b	11/09/2019	12:33	4	NX	1	B	60	60	1457	
40001_VP_1234	11/09/2019	12:34	4	GJ	16	B	60	960	1132	
40001_VP_1235	13/09/2019	14:15	5	ML	1	A	30	30	720	Hunting
40001_VP_1236	13/09/2019	14:24	5	ML	1	A	30	30	902	Hunting
40001_VP_1237	15/09/2019	11:11	5	PG	22	C	180	3960	2509	
40001_VP_1238_a	15/09/2019	12:09	5	EA	1	C	270	270	4111	
40001_VP_1238_b	15/09/2019	12:09	5	EA	1	B	60	60	225	
40001_VP_1238_c	15/09/2019	12:09	5	EA	1	A	15	15	120	
40001_VP_1239_a	15/09/2019	12:10	5	EA	1	B	195	195	3333	
40001_VP_1239_b	15/09/2019	12:10	5	EA	1	A	75	75	386	
40001_VP_1240	15/09/2019	12:11	5	PG	48	D	135	6480	1908	
40001_VP_1241	15/09/2019	12:20	5	EA	1	A	15	15	641	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1242	15/09/2019	12:31	5	EA	1	A	45	45	843	
40001_VP_1243	15/09/2019	12:36	5	EA	1	B	465	465	5067	
40001_VP_1244	15/09/2019	12:39	5	EA	1	B	390	390	2458	
40001_VP_1245_a	15/09/2019	12:51	5	EA	1	B	135	135	3166	Only 1 height change drawn on map so time from 2 Band B bits added together (60s of second time at B)
40001_VP_1245_b	15/09/2019	12:51	5	EA	1	C	510	510	539	
40001_VP_1246	15/09/2019	12:51	5	EA	1	B	495	495	3715	
40001_VP_1247	14/09/2019	17:04	8	ML	1	A	30	30	360	Adult male
40001_VP_1248	14/09/2019	18:22	8	WE	1	B	45	45	1016	
40001_VP_1249	10/09/2019	12:24	8	BV	1	A	30	30	798	
40001_VP_1250_a	10/09/2019	12:44	8	BV	1	A	30	30	201	
40001_VP_1250_b	10/09/2019	12:44	8	BV	1	B	15	15	637	
40001_VP_1251	13/09/2019	07:20	8	BV	1	A	30	30	462	Landed

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1252_a	13/09/2019	07:26	8	BV	1	A	60	60	714	Took off
40001_VP_1252_b	13/09/2019	07:26	8	BV	1	B	15	15	109	
40001_VP_1253	13/09/2019	08:03	8	BV	1	A	45	45	373	Landed
40001_VP_1254_a	13/09/2019	08:16	8	BV	1	A	45	45	1059	Took off
40001_VP_1254_b	13/09/2019	08:16	8	BV	1	B	45	45	199	
40001_VP_1255	14/09/2019	18:29	14	NX	1	A	90	90	1517	Chasing RN
40001_VP_1265_a	13/09/2019	12:10	4	EA	2	D	120	240	1654	Adult pair lost in clouds
40001_VP_1265_b	13/09/2019	12:10	4	EA	2	C	150	300	956	
40001_VP_1266	10/09/2019	08:10	14	NX	1	A	45	45	1032	
40001_VP_1267	10/09/2019	09:38	14	NX	2	A	45	90	910	
40001_VP_1268	11/09/2019	17:51	5	HH	1	A	225	225	1260	Adult female hunting

D.2 Diver Focal Watch Flight Data



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0482_a	26/06/2019	04:41	DFW 2	BV	1	A	30	30	467	from target loch
40001_VP_0482_b	26/06/2019	04:41	DFW 2	BV	1	B	75	75	945	
40001_VP_0483_a	26/06/2019	04:54	DFW 2	RH	2	B	75	150	1756	flew into Loch
40001_VP_0483_b	26/06/2019	04:54	DFW 2	RH	2	A	30	60	216	
40001_VP_0484	26/06/2019	05:27	DFW 2	RH	2	B	90	180	1764	flew over
40001_VP_0485_a	26/06/2019	05:55	DFW 2	RH	2	B	150	300	2996	
40001_VP_0485_b	26/06/2019	05:55	DFW 2	RH	2	A	30	60	276	landed
40001_VP_0486	26/06/2019	05:59	DFW 2	RH	2	A	60	120	1557	landed
40001_VP_0487_a	26/06/2019	19:36	DFW 1	RH	1	A	45	45	1230	not from focal loch
40001_VP_0487_b	26/06/2019	19:36	DFW 1	RH	1	B	150	150	2943	
40001_VP_0488	26/06/2019	19:44	DFW 1	AC	1	A	165	165	2587	
40001_VP_0489	26/06/2019	20:09	DFW 1	RH	1	A	60	60	900	
40001_VP_0490_a	26/06/2019	20:09	DFW 1	RH	1	A	90	90	2637	

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0490_b	26/06/2019	20:09	DFW 1	RH	1	B	15	15	497	
40001_VP_0491	26/06/2019	20:22	DFW 1	RH	1	B	60	60	1846	
40001_VP_0492_a	26/06/2019	21:04	DFW 1	RH	1	B	90	90	1519	
40001_VP_0492_b	26/06/2019	21:04	DFW 1	RH	1	A	15	15	122	
40001_VP_0493_a	26/06/2019	21:36	DFW 1	RH	1	A	15	15	257	
40001_VP_0493_b	26/06/2019	21:36	DFW 1	RH	1	B	135	135	1361	
40001_VP_0493_c	26/06/2019	21:36	DFW 1	RH	1	A	15	15	44	landed in different lochan
40001_VP_0494	26/06/2019	21:36	DFW 1	RH	2	B	225	450	2741	
40001_VP_0495	26/06/2019	21:48	DFW 1	RH	1	B	45	45	1406	
40001_VP_0496	26/06/2019	21:56	DFW 1	RH	1	B	135	135	1960	
40001_VP_0497_a	26/06/2019	22:24	DFW 1	RH	2	B	30	60	1194	pair landing
40001_VP_0497_b	26/06/2019	22:24	DFW 1	RH	2	A	30	60	227	missed one on loch? Illegible
40001_VP_0498_a	27/06/2019	19:47	DFW 2	RH	1	A	30	30	1183	Not from focal loch

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0498_b	27/06/2019	19:47	DFW 2	RH	1	B	30	30	877	
40001_VP_0499_a	27/06/2019	19:55	DFW 2	RH	2	B	30	60	769	landed out of sight, not focal loch
40001_VP_0499_b	27/06/2019	19:55	DFW 2	RH	2	C	30	60	978	
40001_VP_0499_c	27/06/2019	19:55	DFW 2	RH	2	B	30	60	660	
40001_VP_0500_a	27/06/2019	20:11	DFW 2	RH	1	A	15	15	310	from focal loch
40001_VP_0500_b	27/06/2019	20:11	DFW 2	RH	1	B	45	45	1348	
40001_VP_0501_a	27/06/2019	21:14	DFW 2	RH	1	A	15	15	357	from focal loch
40001_VP_0501_b	27/06/2019	21:14	DFW 2	RH	1	B	60	60	1610	
40001_VP_0928_a	07/06/2019	20:46	DFW 6	BV	1	A	30	30	606	Looked to come off breeding loch then onto Loch Uisg' an t-Soluis
40001_VP_0928_b	07/06/2019	20:46	DFW 6	BV	1	B	15	15	293	
40001_VP_0928_c	07/06/2019	20:46	DFW 6	BV	1	A	15	15	294	
40001_VP_0929_a	07/06/2019	22:17	DFW 6	BV	1	B	15	15	337	Looked to land on breeding loch
40001_VP_0929_b	07/06/2019	22:17	DFW 6	BV	1	A	15	15	510	

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0930_a	09/06/2019	20:10	DFW 7	RH	1	A	30	30	586	
40001_VP_0930_b	09/06/2019	20:10	DFW 7	RH	1	B	30	30	634	
40001_VP_0930_c	09/06/2019	20:10	DFW 7	RH	1	C	30	30	628	
40001_VP_0931_a	09/06/2019	20:55	DFW 7	RH	1	C	30	30	744	
40001_VP_0931_b	09/06/2019	20:55	DFW 7	RH	1	A	45	45	673	
40001_VP_0932_a	09/06/2019	21:42	DFW 7	RH	1	A	45	45	659	
40001_VP_0932_b	09/06/2019	21:42	DFW 7	RH	1	B	30	30	833	
40001_VP_0933_a	09/06/2019	21:49	DFW 2	RH	1	A	15	15	200	From breeding loch
40001_VP_0933_b	09/06/2019	21:49	DFW 2	RH	1	B	15	15	593	
40001_VP_0934_a	09/06/2019	22:10	DFW 2	RH	1	A	15	15	212	From breeding loch
40001_VP_0934_b	09/06/2019	22:10	DFW 2	RH	1	B	30	30	745	
40001_VP_0935	14/07/2019	20:55	DFW 8	RH	1	B	105	105	2812	Calling flew over breeding loch and lost to west
40001_VP_0936_a	14/07/2019	21:01	DFW 8	RH	1	A	30	30	550	Potentially off breeding loch, landed on Loch Bhlar Bhuidhe

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0936_b	14/07/2019	21:01	DFW 8	RH	1	B	30	30	590	
40001_VP_0936_c	14/07/2019	21:01	DFW 8	RH	1	A	15	15	367	
40001_VP_0937_a	14/07/2019	21:16	DFW 8	RH	1	A	30	30	506	Calling and looked to come off breeding loch
40001_VP_0937_b	14/07/2019	21:16	DFW 8	RH	1	B	105	105	4125	
40001_VP_0937_c	14/07/2019	21:16	DFW 8	RH	1	A	15	15	323	
40001_VP_0938_a	14/07/2019	21:25	DFW 8	RH	1	A	30	30	370	Off breeding loch then landed over road
40001_VP_0938_c	14/07/2019	21:25	DFW 8	RH	1	A	15	15	265	
40001_VP_0939_a	03/07/2019	05:32	DFW 8	RH	1	A	15	15	210	From breeding loch
40001_VP_0939_b	03/07/2019	05:32	DFW 8	RH	1	B	15	15	377	
40001_VP_0939_c	03/07/2019	05:32	DFW 8	RH	1	A	15	15	140	
40001_VP_0940_a	04/07/2019	22:10	DFW 8	RH	1	A	15	15	77	From breeding loch
40001_VP_0940_b	04/07/2019	22:10	DFW 8	RH	1	B	30	30	633	
40001_VP_0941_a	01/07/2019	17:27	DFW 8	RH	1	A	15	15	106	

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0941_b	01/07/2019	17:27	DFW 8	RH	1	B	30	30	581	
40001_VP_0942_a	30/06/2019	22:17	DFW 7	RH	1	A	15	15	285	Outward flight from breeding loch
40001_VP_0942_b	30/06/2019	22:17	DFW 7	RH	1	B	30	30	725	
40001_VP_0943_a	02/08/2019	19:48	DFW 7	RH	1	A	15	15	927	
40001_VP_0943_b	02/08/2019	19:48	DFW 7	RH	1	B	45	45	350	
40001_VP_0944_a	02/08/2019	21:35	DFW 7	RH	1	C	30	30	254	
40001_VP_0944_b	02/08/2019	21:35	DFW 7	RH	1	B	15	15	724	
40001_VP_0944_c	02/08/2019	21:35	DFW 7	RH	1	A	5	5	602	
40001_VP_0945_a	03/08/2019	05:35	DFW 7	RH	1	A	15	15	197	
40001_VP_0945_b	03/08/2019	05:35	DFW 7	RH	1	B	15	15	523	
40001_VP_0945_c	03/08/2019	05:35	DFW 7	RH	1	C	30	30	644	
40001_VP_0946_a	03/08/2019	08:02	DFW 7	RH	1	C	15	15	241	
40001_VP_0946_b	03/08/2019	08:02	DFW 7	RH	1	C	30	30	1116	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0947_a	03/08/2019	20:19	DFW 7	RH	1	C	30	30	1156	
40001_VP_0947_b	03/08/2019	20:19	DFW 7	RH	1	B	15	15	287	
40001_VP_0947_c	03/08/2019	20:19	DFW 7	RH	1	A	15	15	145	
40001_VP_0948_a	03/08/2019	20:53	DFW 7	RH	1	A	30	30	596	
40001_VP_0948_b	03/08/2019	20:53	DFW 7	RH	1	B	15	15	775	
40001_VP_0949_a	04/08/2019	07:22	DFW 7	RH	1	C	45	45	1052	
40001_VP_0949_b	04/08/2019	07:22	DFW 7	RH	1	A	15	15	189	
40001_VP_0950_a	04/08/2019	20:09	DFW 7	RH	1	C	30	30	962	
40001_VP_0950_b	04/08/2019	20:09	DFW 7	RH	1	B	30	30	480	
40001_VP_0950_c	04/08/2019	20:09	DFW 7	RH	1	A	15	15	151	
40001_VP_0951_a	06/08/2019	05:30	DFW 7	RH	1	A	30	30	656	
40001_VP_0951_b	06/08/2019	05:30	DFW 7	RH	1	B	45	45	812	
40001_VP_0952_a	06/08/2019	06:51	DFW 7	RH	1	B	60	60	1295	

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0952_b	06/08/2019	06:51	DFW 7	RH	1	A	15	15	187	
40001_VP_0953_a	06/08/2019	08:16	DFW 7	RH	1	A	15	15	480	
40001_VP_0953_b	06/08/2019	08:16	DFW 7	RH	1	B	15	15	421	
40001_VP_0953_c	06/08/2019	08:16	DFW 7	RH	1	C	15	15	967	
40001_VP_0954	06/08/2019	21:25	DFW 7	RH	1	A	60	60	1376	Into breeding lochan
40001_VP_0955_a	06/07/2019	19:59	DFW 1	RH	2	C	150	300	3967	
40001_VP_0955_b	06/07/2019	19:59	DFW 1	RH	2	B	75	150	3095	
40001_VP_0955_c	06/07/2019	19:59	DFW 1	RH	2	A	30	60	1356	Landed on Loch a Chlachain
40001_VP_0957	04/07/2019	19:45	DFW 2	RH	1	B	30	30	2035	
40001_VP_0958	04/07/2019	20:10	DFW 2	RH	1	B	45	45	1287	Notes say descended towards loch with food but height band remains same
40001_VP_0959	04/07/2019	20:23	DFW 2	RH	1	B	105	105	2378	
40001_VP_0960	05/07/2019	04:30	DFW 1	RH	1	B	135	135	2630	With food



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0961_a	05/07/2019	05:18	DFW 1	RH	2	B	105	210	5631	Landed on breeding loch
40001_VP_0961_b	05/07/2019	05:18	DFW 1	RH	2	A	15	30	172	
40001_VP_0962_a	05/07/2019	05:25	DFW 1	RH	2	B	180	360	4348	
40001_VP_0962_b	05/07/2019	05:25	DFW 1	RH	2	A	15	30	1249	
40001_VP_0963_a	05/07/2019	05:50	DFW 1	RH	2	A	45	90	874	
40001_VP_0963_b	05/07/2019	05:50	DFW 1	RH	2	B	75	150	2290	
40001_VP_0964_a	05/07/2019	06:05	DFW 1	RH	2	B	195	390	3343	
40001_VP_0964_b	05/07/2019	06:05	DFW 1	RH	2	C	45	90	538	
40001_VP_0964_c	05/07/2019	06:05	DFW 1	RH	2	B	30	60	1129	
40001_VP_0965	05/07/2019	06:14	DFW 1	RH	2	B	120	240	3399	
40001_VP_0966_a	05/07/2019	07:05	DFW 1	RH	1	B	75	75	2456	
40001_VP_0966_b	05/07/2019	07:05	DFW 1	RH	1	A	15	15	372	
40001_VP_0967	05/07/2019	07:25	DFW 1	RH	2	B	60	120	949	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0968_a	23/07/2019	20:45	DFW 7	BV	2	B	30	60	1205	
40001_VP_0968_b	23/07/2019	20:45	DFW 7	BV	2	A	30	60	391	
40001_VP_0968_c	23/07/2019	20:45	DFW 7	BV	2	B	135	270	1533	
40001_VP_0969	23/07/2019	21:10	DFW 7	RH	1	B	150	150	2485	
40001_VP_0970_a	25/07/2019	07:25	DFW 4	RH	2	B	90	180	4082	
40001_VP_0970_b	25/07/2019	07:25	DFW 4	RH	2	A	15	30	300	
40001_VP_0971_a	25/07/2019	07:43	DFW 4	RH	1	B	15	15	105	
40001_VP_0971_b	25/07/2019	07:43	DFW 4	RH	1	A	60	60	944	
40001_VP_0972_a	25/07/2019	08:30	DFW 4	RH	1	B	45	45	1805	
40001_VP_0972_b	25/07/2019	08:30	DFW 4	RH	1	A	45	45	295	
40001_VP_0973_a	25/07/2019	09:01	DFW 4	RH	2	A	15	30	302	
40001_VP_0973_b	25/07/2019	09:01	DFW 4	RH	2	B	150	300	2415	
40001_VP_0974	06/07/2019	04:45	DFW 2	RH	1	B	75	75	1788	With food, probably onto breeding loch



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0975	06/07/2019	05:25	DFW 2	RH	1	B	45	45	1899	Probably onto breeding loch
40001_VP_0976_a	06/07/2019	05:35	DFW 2	RH	2	B	30	60	643	
40001_VP_0976_b	06/07/2019	05:35	DFW 2	RH	2	C	15	30	314	
40001_VP_0976_c	06/07/2019	05:35	DFW 2	RH	2	B	45	90	1714	
40001_VP_0977	06/07/2019	05:40	DFW 2	RH	2	B	90	180	2458	
40001_VP_0978	06/07/2019	06:37	DFW 2	RH	1	B	75	75	1051	
40001_VP_0979	06/07/2019	06:50	DFW 2	RH	1	B	75	75	1447	
40001_VP_0980	06/07/2019	07:00	DFW 2	RH	1	B	90	90	1922	
40001_VP_0981	02/07/2019	20:14	DFW 4	RH	1	B	60	60	1365	
40001_VP_0982	02/07/2019	20:19	DFW 4	RH	1	B	45	45	1443	
40001_VP_0983_a	02/07/2019	20:38	DFW 4	RH	1	C	30	30	999	
40001_VP_0983_b	02/07/2019	20:38	DFW 4	RH	1	B	60	60	1367	
40001_VP_0984_a	02/07/2019	21:00	DFW 4	RH	1	B	45	45	1320	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0984_b	02/07/2019	21:00	DFW 4	RH	1	A	15	15	49	
40001_VP_0985	02/07/2019	21:49	DFW 4	RH	1	B	60	60	1354	
40001_VP_0986	02/07/2019	21:57	DFW 4	RH	1	B	120	120	2167	
40001_VP_0987_a	02/07/2019	22:03	DFW 4	BV	2	B	120	240	3149	
40001_VP_0987_b	02/07/2019	22:03	DFW 4	BV	2	A	15	30	191	
40001_VP_0988_a	02/07/2019	22:30	DFW 4	RH	1	B	150	150	1010	
40001_VP_0988_b	02/07/2019	22:30	DFW 4	RH	1	C	45	45	1666	
40001_VP_0989	24/07/2019	05:46	DFW 2	RH	2	B	75	150	1762	From breeding loch
40001_VP_0990	24/07/2019	06:49	DFW 2	RH	1	B	30	30	1983	
40001_VP_0991_a	24/07/2019	07:49	DFW 2	RH	4	B	75	300	2703	
40001_VP_0991_b	24/07/2019	07:49	DFW 2	RH	4	C	45	180	2274	
40001_VP_0992_a	24/07/2019	07:54	DFW 2	RH	2	B	60	120	1720	Towards breeding loch
40001_VP_0992_b	24/07/2019	07:54	DFW 2	RH	2	A	15	30	202	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_0993_a	24/07/2019	08:05	DFW 2	RH	2	B	75	150	1026	Likely from breeding loch
40001_VP_0993_b	24/07/2019	08:05	DFW 2	RH	2	A	15	30	130	
40001_VP_0994	24/07/2019	08:06	DFW 2	RH	2	B	90	180	3333	
40001_VP_0995_a	24/07/2019	08:45	DFW 2	RH	2	B	45	90	1904	
40001_VP_0995_b	24/07/2019	08:45	DFW 2	RH	2	A	15	30	317	
40001_VP_0996_a	03/07/2019	20:03	DFW 7	BV	1	B	45	45	1350	Notes too hard to read
40001_VP_0996_b	03/07/2019	20:03	DFW 7	BV	1	A	30	30	2015	
40001_VP_0996_c	03/07/2019	20:03	DFW 7	BV	1	B	165	165	1440	
40001_VP_0997_a	03/07/2019	20:22	DFW 7	RH	1	C	120	120	1205	
40001_VP_0997_b	03/07/2019	20:22	DFW 7	RH	1	B	30	30	858	
40001_VP_0997_c	03/07/2019	20:22	DFW 7	RH	1	C	120	120	2903	
40001_VP_0998	03/07/2019	20:30	DFW 7	RH	1	B	75	75	1925	
40001_VP_0999	03/07/2019	21:00	DFW 7	BV	1	A	60	60	1938	Flight into breeding loch



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1000_a	03/07/2019	21:12	DFW 7	RH	1	B	45	45	1637	
40001_VP_1000_b	03/07/2019	21:12	DFW 7	RH	1	A	15	15	197	
40001_VP_1001	03/07/2019	21:15	DFW 7	BV	1	A	120	120	1692	Possibly flight off breeding loch
40001_VP_1002_a	03/07/2019	21:19	DFW 7	RH	1	B	75	75	986	
40001_VP_1002_b	03/07/2019	21:19	DFW 7	RH	1	A	30	30	188	
40001_VP_1003	03/07/2019	21:53	DFW 7	RH	1	B	150	150	2733	
40001_VP_1004_a	03/07/2019	22:39	DFW 7	RH	1	B	90	90	580	
40001_VP_1004_b	03/07/2019	22:39	DFW 7	RH	1	A	45	45	578	
40001_VP_1005_a	24/07/2019	20:48	DFW 7	RH	2	B	135	270	3428	
40001_VP_1005_b	24/07/2019	20:48	DFW 7	RH	2	A	30	60	341	
40001_VP_1006	24/07/2019	21:20	DFW 7	RH	2	B	210	420	3615	
40001_VP_1007_a	23/07/2019	13:30	DFW 8	RH	1	A	45	45	647	From breeding loch
40001_VP_1007_b	23/07/2019	13:30	DFW 8	RH	1	B	30	30	1085	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1007_c	23/07/2019	13:30	DFW 8	RH	1	A	15	15	338	
40001_VP_1008_a	23/07/2019	13:39	DFW 8	RH	1	A	30	30	303	From breeding loch
40001_VP_1008_b	23/07/2019	13:39	DFW 8	RH	1	B	30	30	489	
40001_VP_1008_c	23/07/2019	13:39	DFW 8	RH	1	A	15	15	307	
40001_VP_1009_a	03/07/2019	05:15	DFW 7	RH	1	B	45	45	752	Into BV breeding loch
40001_VP_1009_b	03/07/2019	05:15	DFW 7	RH	1	A	15	15	228	
40001_VP_1010_a	03/07/2019	05:20	DFW 7	RH	2	B	30	60	515	
40001_VP_1010_b	03/07/2019	05:20	DFW 7	RH	2	A	15	30	156	
40001_VP_1011	03/07/2019	05:35	DFW 7	RH	1	B	75	75	2055	
40001_VP_1012	03/07/2019	05:39	DFW 7	RH	2	B	30	60	1113	Into BV breeding loch
40001_VP_1013	03/07/2019	06:15	DFW 7	RH	2	B	120	240	1551	
40001_VP_1014	08/06/2019	20:33	DFW 4	RH	2	B	90	180	5093	
40001_VP_1015_a	08/06/2019	20:34	DFW 4	RH	3	B	45	135	5100	Initially flying with 4th bird (separate flight ID)



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1015_b	08/06/2019	20:34	DFW 4	RH	3	A	15	45	386	
40001_VP_1016	08/06/2019	20:34	DFW 4	RH	1	B	75	75	7965	
40001_VP_1017	08/06/2019	20:35	DFW 4	RH	2	B	75	150	6098	
40001_VP_1018_a	08/06/2019	20:48	DFW 4	RH	1	A	30	30	816	
40001_VP_1018_b	08/06/2019	20:48	DFW 4	RH	1	B	105	105	2044	Off breeding loch
40001_VP_1019	08/06/2019	21:27	DFW 4	RH	2	B	90	180	3138	
40001_VP_1020_a	08/06/2019	21:32	DFW 4	RH	1	B	45	45	1576	
40001_VP_1020_b	08/06/2019	21:32	DFW 4	RH	1	A	15	15	210	
40001_VP_1021_a	09/06/2019	05:20	DFW 4	RH	1	B	30	30	2016	
40001_VP_1021_b	09/06/2019	05:20	DFW 4	RH	1	A	15	15	200	
40001_VP_1022	09/06/2019	06:11	DFW 4	RH	1	B	135	135	4155	Flight from breeding loch
40001_VP_1023_a	09/06/2019	06:26	DFW 4	RH	1	B	90	90	1872	
40001_VP_1023_b	09/06/2019	06:26	DFW 4	RH	1	A	15	15	200	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1024_a	23/07/2019	19:26	DFW 2	RH	1	A	15	15	268	Out of breeding loch
40001_VP_1024_b	23/07/2019	19:26	DFW 2	RH	1	B	45	45	1049	
40001_VP_1025	23/07/2019	19:56	DFW 2	RH	1	A	30	30	681	Into breeding loch
40001_VP_1026_a	23/07/2019	21:45	DFW 2	RH	1	A	15	15	291	Out of breeding loch
40001_VP_1026_b	23/07/2019	21:45	DFW 2	RH	1	B	45	45	935	
40001_VP_1027_a	24/07/2019	06:35	DFW 4	RH	1	A	15	15	198	Off breeding loch
40001_VP_1027_b	24/07/2019	06:35	DFW 4	RH	1	B	30	30	733	
40001_VP_1028_a	20/07/2019	19:49	DFW 2	RH	1	B	60	60	1361	Into breeding loch
40001_VP_1028_b	20/07/2019	19:49	DFW 2	RH	1	A	15	15	61	
40001_VP_1029	20/07/2019	20:01	DFW 2	RH	2	D	165	330	2696	
40001_VP_1030_a	20/07/2019	20:39	DFW 2	RH	1	A	15	15	266	Off breeding loch
40001_VP_1030_b	20/07/2019	20:39	DFW 2	RH	1	B	30	30	505	
40001_VP_1030_c	20/07/2019	20:39	DFW 2	RH	1	C	45	45	671	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1031_a	20/07/2019	21:41	DFW 2	RH	2	B	45	90	1137	
40001_VP_1032_b	20/07/2019	21:55	DFW 2	RH	1	B	45	45	347	
40001_VP_1033_a	20/07/2019	06:16	DFW 8	BV	1	A	30	30	843	BV off breeding loch
40001_VP_1033_b	20/07/2019	06:16	DFW 8	BV	1	B	15	15	250	
40001_VP_1033_c	20/07/2019	06:16	DFW 8	BV	1	C	30	30	326	
40001_VP_1034_a	20/07/2019	06:43	DFW 8	BV	1	C	15	15	389	Into breeding loch
40001_VP_1034_b	20/07/2019	06:43	DFW 8	BV	1	B	45	45	810	
40001_VP_1034_c	20/07/2019	06:43	DFW 8	BV	1	A	15	15	234	
40001_VP_1035_a	19/07/2019	20:43	DFW 7	RH	1	A	30	30	619	Off breeding loch
40001_VP_1035_b	19/07/2019	20:43	DFW 7	RH	1	B	30	30	810	
40001_VP_1035_c	19/07/2019	20:43	DFW 7	RH	1	C	15	15	184	
40001_VP_1037_a	19/07/2019	19:22	DFW 7	BV	1	A	15	15		Off breeding loch
40001_VP_1037_b	19/07/2019	19:22	DFW 7	BV	1	B	30	30		

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1038_a	19/07/2019	20:16	DFW 7	BV	1	B	30	30		
40001_VP_1038_b	19/07/2019	20:16	DFW 7	BV	1	A	15	15		Onto breeding loch
40001_VP_1039_a	19/07/2019	20:55	DFW 7	BV	1	A	15	15	524	Off breeding loch
40001_VP_1039_b	19/07/2019	20:55	DFW 7	BV	1	B	45	45	1272	
40001_VP_1040_a	19/07/2019	22:02	DFW 7	BV	1	C	15	15	319	
40001_VP_1040_b	19/07/2019	22:02	DFW 7	BV	1	B	30	30	1096	
40001_VP_1040_c	19/07/2019	22:02	DFW 7	BV	1	A	15	15	495	
40001_VP_1057_a	15/08/2019	21:10	DFW 7	RH	1	C	30	30	586	
40001_VP_1057_b	15/08/2019	21:10	DFW 7	RH	1	B	30	30	820	
40001_VP_1057_c	15/08/2019	21:10	DFW 7	RH	1	A	15	15	292	assumed to land on lochan
40001_VP_1116_a	25/08/2019	19:39	DFW 7	BV	2	B	75	150	775	
40001_VP_1116_b	25/08/2019	19:39	DFW 7	BV	2	A	15	30	55	landed
40001_VP_1117_a	25/08/2019	19:51	DFW 7	BV	1	A	30	30	344	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1117_b	25/08/2019	19:51	DFW 7	BV	1	B	60	60	880	
40001_VP_1121	28/06/2019	22:01	DFW 6	BV	2	B	60	120	1460	flew over loch - height bands unmapped
40001_VP_1122	30/06/2019	04:38	DFW 8	RH	1	A	30	30	549	landed on target loch
40001_VP_1123_a	30/06/2019	04:43	DFW 8	RH	1	A	60	60	427	out of target loch
40001_VP_1123_b	30/06/2019	04:43	DFW 8	RH	1	B	30	30	336	
40001_VP_1123_c	30/06/2019	04:43	DFW 8	RH	1	A	15	15	91	
40001_VP_1124	30/06/2019	05:17	DFW 8	BV	1	B	240	240	2379	
40001_VP_1125	30/06/2019	05:38	DFW 8	BV	1	B	45	45	659	
40001_VP_1126	30/06/2019	06:14	DFW 8	BV	1	B	150	150	750	
40001_VP_1127	30/06/2019	06:27	DFW 8	RH	1	B	150	150	288	
40001_VP_1128	30/06/2019	06:29	DFW 8	RH	1	B	255	255	3063	
40001_VP_1129	30/06/2019	06:51	DFW 8	RH	1	B	105	105	1332	height bands unmapped
40001_VP_1130	30/06/2019	07:23	DFW 8	RH	1	A	30	30	531	landed on target loch

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1131_a	13/07/2019	20:22	DFW 2	RH	1	B	30	30	949	
40001_VP_1131_b	13/07/2019	20:22	DFW 2	RH	1	A	15	15	165	landed on focal loch, out of view
40001_VP_1132_a	13/07/2019	20:35	DFW 2	RH	1	A	30	30	543	out of focal loch
40001_VP_1132_b	13/07/2019	20:35	DFW 2	RH	1	B	30	30	770	
40001_VP_1133_a	13/07/2019	20:50	DFW 2	RH	1	B	30	30	900	
40001_VP_1133_b	13/07/2019	20:50	DFW 2	RH	1	A	15	15	146	Landed on focal loch
40001_VP_1134	13/07/2019	22:00	DFW 2	RH	1	B	45	45	1437	Not from focal loch
40001_VP_1135_a	13/07/2019	22:06	DFW 2	RH	2	B	90	180	2055	
40001_VP_1135_b	13/07/2019	22:06	DFW 2	RH	2	A	30	60	362	landed out of sight
40001_VP_1136	11/07/2019	19:21	DFW 7	RH	2	C	45	90	868	
40001_VP_1137_a	11/07/2019	20:27	DFW 7	BV	1	A	30	30	362	
40001_VP_1137_b	11/07/2019	20:27	DFW 7	BV	1	B	75	75	599	
40001_VP_1138	11/07/2019	20:33	DFW 7	BV	1	A	45	45	680	landed out of sight

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1139_a	11/07/2019	20:57	DFW 7	RH	1	B	105	105	714	
40001_VP_1139_b	11/07/2019	20:57	DFW 7	RH	1	A	15	15	141	
40001_VP_1140	11/07/2019	21:29	DFW 7	RH	1	B	135	135	1877	
40001_VP_1141	11/07/2019	21:38	DFW 7	RH	1	B	45	45	1618	
40001_VP_1142	11/07/2019	21:42	DFW 7	RH	2	B	90	180	2300	
40001_VP_1143_a	12/07/2019	19:53	DFW 4	RH	1	B	30	30	288	
40001_VP_1143_b	12/07/2019	19:53	DFW 4	RH	1	A	15	15	263	
40001_VP_1143_c	12/07/2019	19:53	DFW 4	RH	1	B	45	45	827	
40001_VP_1144_a	12/07/2019	20:03	DFW 4	RH	2	A	105	210	1985	
40001_VP_1144_b	12/07/2019	20:03	DFW 4	RH	2	B	30	60	407	
40001_VP_1145_a	12/07/2019	20:11	DFW 4	RH	1	A	45	45	552	from focal loch
40001_VP_1145_b	12/07/2019	20:11	DFW 4	RH	1	B	75	75	1254	
40001_VP_1146_a	12/07/2019	20:28	DFW 4	RH	1	A	45	45	502	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1146_b	12/07/2019	20:28	DFW 4	RH	1	B	30	30	745	
40001_VP_1147_a	12/07/2019	20:39	DFW 4	RH	1	B	30	30	789	
40001_VP_1147_b	12/07/2019	20:39	DFW 4	RH	1	A	15	15	92	landed on focal loch
40001_VP_1148	12/07/2019	21:07	DFW 4	RH	1	B	90	90	1851	
40001_VP_1149_a	21/07/2019	06:18	DFW 8	BV	1	C	15	15	530	
40001_VP_1149_b	21/07/2019	06:18	DFW 8	BV	1	B	30	30	833	
40001_VP_1149_c	21/07/2019	06:18	DFW 8	BV	1	A	15	15	158	
40001_VP_1150	21/07/2019	07:04	DFW 8	RH	1	A	15	15	456	onto loch
40001_VP_1151	21/07/2019	07:09	DFW 8	RH	1	A	30	30	540	onto loch
40001_VP_1152_a	21/07/2019	07:24	DFW 8	RH	2	C	30	60	625	
40001_VP_1152_b	21/07/2019	07:24	DFW 8	RH	2	B	15	30	604	
40001_VP_1152_c	21/07/2019	07:24	DFW 8	RH	2	A	15	30	152	onto loch
40001_VP_1153_a	21/07/2019	20:10	DFW 8	BV	1	A	30	30	676	possibly out of Loch a Bhlar Bhuidhe



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1153_b	21/07/2019	20:10	DFW 8	BV	1	B	45	45	444	
40001_VP_1153_c	21/07/2019	20:10	DFW 8	BV	1	C	45	45	708	
40001_VP_1154_a	22/07/2019	19:39	DFW 4	RH	1	A	15	15	305	
40001_VP_1154_b	22/07/2019	19:39	DFW 4	RH	1	B	15	15	304	
40001_VP_1154_c	22/07/2019	19:39	DFW 4	RH	1	C	30	30	754	
40001_VP_1155_a	22/07/2019	19:52	DFW 4	RH	1	A	30	30	682	
40001_VP_1155_b	22/07/2019	19:52	DFW 4	RH	1	B	30	30	789	
40001_VP_1156	22/07/2019	20:03	DFW 4	RH	1	A	30	30	892	
40001_VP_1157_a	22/07/2019	21:13	DFW 4	RH	1	B	15	15	335	
40001_VP_1157_b	22/07/2019	21:13	DFW 4	RH	1	A	45	45	955	
40001_VP_1158_a	23/07/2019	05:12	DFW 2	RH	1	A	15	15	223	assumed out of focal loch
40001_VP_1158_b	23/07/2019	05:12	DFW 2	RH	1	B	30	30	617	
40001_VP_1159_a	23/07/2019	06:39	DFW 2	RH	1	A	15	15	259	assumed out of focal loch



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1159_b	23/07/2019	06:39	DFW 2	RH	1	B	30	30	830	
40001_VP_1159_c	23/07/2019	06:39	DFW 2	RH	1	C	15	15	273	
40001_VP_1160_a	22/07/2019	05:57	DFW 7	RH	1	A	15	15	379	flew from target lochan, calling
40001_VP_1160_b	22/07/2019	05:57	DFW 7	RH	1	B	30	30	1066	
40001_VP_1161	23/07/2019	06:02	DFW 4	RH	2	B	120	240	3591	Not from focal loch
40001_VP_1162	23/07/2019	06:51	DFW 4	RH	1	B	90	90	1737	Not from focal loch
40001_VP_1163	23/07/2019	19:20	DFW 4	RH	2	B	135	270	2854	calling in transit
40001_VP_1164	23/07/2019	19:54	DFW 4	RH	3	B	150	450	3824	individuals in transit, calling
40001_VP_1165	23/07/2019	20:38	DFW 4	RH	1	B	90	90	1472	silent, in transit
40001_VP_1166_a	23/07/2019	21:17	DFW 4	RH	1	B	60	60	1138	Silent, toward target lochan
40001_VP_1166_b	23/07/2019	21:17	DFW 4	RH	1	A	15	15	407	lost from view, assumed landed on loch
40001_VP_1167_a	23/07/2019	21:30	DFW 4	RH	1	B	75	75	1165	silent, in transit
40001_VP_1167_b	23/07/2019	21:30	DFW 4	RH	1	A	15	15	293	

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1168	24/07/2019	19:31	DFW 2	RH	1	B	30	30	1202	Not from focal loch
40001_VP_1169_a	24/07/2019	21:46	DFW 2	RH	1	A	15	15	228	out from focal loch
40001_VP_1169_b	24/07/2019	21:46	DFW 2	RH	1	B	30	30	1162	
40001_VP_1170_a	25/07/2019	20:48	DFW 4	RH	1	B	60	60	1559	incoming towards loch, calling
40001_VP_1170_b	25/07/2019	20:48	DFW 4	RH	1	A	15	15	518	assumed to land on loch
40001_VP_1171_a	25/07/2019	20:48	DFW 4	RH	1	B	75	75	1229	incoming towards loch, calling
40001_VP_1171_b	25/07/2019	20:48	DFW 4	RH	1	A	15	15	859	assumed to land on loch
40001_VP_1172_a	26/07/2019	06:11	DFW 7	BV	2	A	15	30	184	adult pair left Loch Sgeireach
40001_VP_1172_b	26/07/2019	06:11	DFW 7	BV	2	B	15	30	492	
40001_VP_1172_c	26/07/2019	06:11	DFW 7	BV	2	A	15	30	227	Landed Loch Grinneabhat
40001_VP_1173	26/07/2019	06:15	DFW 7	RH	2	A	45	90	1143	
40001_VP_1174	26/07/2019	21:09	DFW 8	BV	2	A	30	60	699	Calling from Bhlar a Bhuidhe then Out of view low towards Loch Orasaigh

GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1175_a	27/07/2019	06:22	DFW 8	RH	1	A	15	15	164	
40001_VP_1175_b	27/07/2019	06:22	DFW 8	RH	1	B	15	15	582	
40001_VP_1176	22/06/2019	05:08	DFW 7	RH	1	B	45	45	1402	Flying SE
40001_VP_1177	22/06/2019	05:35	DFW 7	RH	1	A	60	60	1563	Landed on loch
40001_VP_1178_a	22/06/2019	06:45	DFW 7	RH	4	B	15	60	744	
40001_VP_1178_b	22/06/2019	06:45	DFW 7	RH	4	A	15	60	423	Landed on Loch Grinneabhat
40001_VP_1179	22/06/2019	20:36	DFW 7	RH	1	B	45	45	1312	Not from focal loch
40001_VP_1180	22/06/2019	21:08	DFW 7	RH	2	C	75	150	1519	Not from focal loch
40001_VP_1181	22/06/2019	21:50	DFW 7	RH	1	B	60	60	2329	Not from focal loch
40001_VP_1182	13/06/2019	20:15	DFW 6	RH	2	B	45	90	1060	Not from focal loch
40001_VP_1183	13/06/2019	21:07	DFW 6	RH	3	B	45	135	1128	Not from focal loch
40001_VP_1184	13/06/2019	21:40	DFW 6	RH	1	B	45	45	1080	Not from focal loch
40001_VP_1185	13/06/2019	22:05	DFW 6	RH	2	B	45	90	1090	Not from focal loch



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1186	12/06/2019	06:10	DFW 2	RH	1	B	15	15	896	Through survey area
40001_VP_1187	12/06/2019	06:41	DFW 2	BV	2	B	15	30	1009	Through survey area
40001_VP_1188	12/06/2019	07:05	DFW 2	RH	1	B	15	15	1953	Through survey area
40001_VP_1189	12/06/2019	20:50	DFW 4	BV	1	B	45	45	1426	Through survey area
40001_VP_1190	11/06/2019	21:10	DFW 1	BV	1	B	30	30	1730	NE through survey area
40001_VP_1191	13/06/2019	05:40	DFW 4	BV	1	B	45	45	1875	North through survey area
40001_VP_1192_a	13/06/2019	06:50	DFW 4	BV	1	B	30	30	1436	
40001_VP_1192_b	13/06/2019	06:50	DFW 4	BV	1	A	15	15	136	landed on loch
40001_VP_1193	13/06/2019	07:05	DFW 4	BV	2	B	45	90	1756	North through survey area
40001_VP_1194_a	13/06/2019	07:10	DFW 4	RH	2	B	30	60	2294	
40001_VP_1194_b	13/06/2019	07:10	DFW 4	RH	2	A	15	30	216	landed on loch
40001_VP_1195_a	24/06/2019	05:50	DFW 6	BV	2	B	45	90	951	
40001_VP_1195_b	24/06/2019	05:50	DFW 6	BV	2	B	15	30	212	landed on loch



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1196	24/06/2019	07:10	DFW 6	RH	2	B	45	90	831	
40001_VP_1197	12/07/2019	19:20	DFW 7	RH	1	A	30	30	790	
40001_VP_1198	12/07/2019	20:05	DFW 7	RH	1	A	30	30	911	
40001_VP_1199	12/07/2019	21:30	DFW 7	RH	2	B	90	180	2532	Through survey area
40001_VP_1200	14/07/2019	07:30	DFW 4	RH	1	B	30	30	904	Through survey area
40001_VP_1201_a	18/07/2019	06:10	DFW 2	RH	1	B	15	15	703	
40001_VP_1201_b	18/07/2019	06:10	DFW 2	RH	1	A	15	15	98	appeared to land on loch
40001_VP_1202	29/07/2019	20:40	DFW 8	RH	2	B	30	60	1081	Through survey area
40001_VP_1203	26/07/2019	20:13	DFW 7	RH	1	B	30	30	1436	flight out - mapping unclear
40001_VP_1204	26/07/2019	07:35	DFW 4	RH	1	A	15	15	727	
40001_VP_1205	26/07/2019	07:50	DFW 4	RH	2	B	45	90	1576	Through survey area
40001_VP_1206	26/07/2019	08:05	DFW 4	RH	1	A	15	15	774	
40001_VP_1256_a	03/07/2019	20:03	DFW 7	BV	1	B	45	45	1167	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1256_b	03/07/2019	20:03	DFW 7	BV	1	A	30	30	1943	
40001_VP_1256_c	03/07/2019	20:03	DFW 7	BV	1	B	165	165	1307	
40001_VP_1257_a	03/07/2019	20:22	DFW 7	RH	1	C	120	120	1195	
40001_VP_1257_b	03/07/2019	20:22	DFW 7	RH	1	B	30	30	771	
40001_VP_1257_c	03/07/2019	20:22	DFW 7	RH	1	C	120	120	2700	
40001_VP_1258	03/07/2019	20:30	DFW 7	RH	1	B	75	75	1728	
40001_VP_1259	03/07/2019	21:00	DFW 7	BV	1	A	60	60	1837	Landed on loch
40001_VP_1260_a	03/07/2019	21:12	DFW 7	RH	1	B	45	45	1419	
40001_VP_1260_b	03/07/2019	21:12	DFW 7	RH	1	A	15	15	226	
40001_VP_1261	03/07/2019	21:15	DFW 7	BV	1	A	120	120	1810	
40001_VP_1262_a	03/07/2019	21:19	DFW 7	RH	1	B	75	75	1035	From breeding loch
40001_VP_1262_b	03/07/2019	21:19	DFW 7	RH	1	A	30	30	353	
40001_VP_1263	03/07/2019	21:53	DFW 7	RH	1	B	150	150	2623	



GISID	Date	Time	FW	Species	Count	Height Band	Seconds	Total Seconds	Length (m)	Notes
40001_VP_1264_a	03/07/2019	22:39	DFW 7	RH	1	B	90	90	610	
40001_VP_1264_b	03/07/2019	22:39	DFW 7	RH	1	A	45	45	555	Landed out of view on large lochan

D.3 Hen Harrier Focal Watch Flight Data

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0831	21/05/2019	17:31	HHFW9	HH	2	A	45	90	326	Male and female, male looked to have just dropped food
40001_VP_0832	21/05/2019	17:35	HHFW9	HH	1	A	60	60	393	Male leaving nesting area
40001_VP_0833	21/05/2019	17:36	HHFW9	HH	1	A	15	15	168	Female back into nesting area
40001_VP_0834	21/05/2019	17:52	HHFW9	HH	1	A	90	90	948	Male leaving nesting area (missed food drop?)
40001_VP_0835	21/05/2019	17:56	HHFW9	HH	1	A	15	15	133	Female back into heather (with/after eating food from male?)
40001_VP_0836	21/05/2019	19:02	HHFW9	HH	1	A	15	15	57	Female, landed on 2 fenceposts (next 2 flights)
40001_VP_0837	21/05/2019	19:03	HHFW9	HH	1	A	15	15	281	
40001_VP_0838	21/05/2019	19:05	HHFW9	HH	1	A	15	15	252	
40001_VP_0839	22/05/2019	15:24	HHFW4	HH	1	A	45	45	585	Adult male hunting & landed on hillside
40001_VP_0840	22/05/2019	15:27	HHFW4	HH	1	A	30	30	365	Same male
40001_VP_0841_a	22/05/2019	17:20	HHFW4	HH	1	A	45	45	533	Female alarming, due to 2 RSG guys on Beinn Greidaig (they didn't realise nest was close)
40001_VP_0841_b	22/05/2019	17:20	HHFW4	HH	1	B	15	15	180	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0841_c	22/05/2019	17:20	HHFW4	HH	1	A	30	30	239	
40001_VP_0842_a	21/05/2019	15:24	HHFW8	HH	1	B	15	15	362	Male bringing in food to nest
40001_VP_0842_b	21/05/2019	15:24	HHFW8	HH	1	A	30	30	297	Female away from nest
40001_VP_0843	21/05/2019	15:25	HHFW8	HH	1	A	75	75	633	Male away from nest
40001_VP_0844_a	21/05/2019	15:27	HHFW8	HH	1	A	15	15	292	
40001_VP_0844_b	21/05/2019	15:27	HHFW8	HH	1	B	105	105	1790	
40001_VP_0845	19/05/2019	09:21	HHFW9	HH	1	A	15	15	399	Male in with food
40001_VP_0846	19/05/2019	09:21	HHFW9	HH	1	A	15	15	214	Male to perch
40001_VP_0847	19/05/2019	09:34	HHFW9	HH	1	A	15	15	140	Female away from nest
40001_VP_0848	19/05/2019	09:36	HHFW9	HH	1	A	15	15	146	Female return to nest
40001_VP_0849	19/05/2019	10:50	HHFW9	HH	1	A	30	30	668	Male leaves perch
40001_VP_0850_a	19/05/2019	12:32	HHFW4	HH	1	B	15	15	282	Male in with food
40001_VP_0850_b	19/05/2019	12:32	HHFW4	HH	1	A	15	15	403	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0851	19/05/2019	12:53	HHFW4	HH	1	A	15	15	684	Female wing stretch
40001_VP_0852	19/05/2019	13:57	HHFW4	HH	1	A	45	45	828	Male away from nest
40001_VP_0853	20/05/2019	09:20	HHFW10	HH	1	A	15	15	444	Female wing stretch
40001_VP_0854	20/05/2019	10:43	HHFW10	HH	1	A	30	30	213	Male provision
40001_VP_0855	20/05/2019	10:43	HHFW10	HH	1	A	15	15	203	Female from nest
40001_VP_0856	20/05/2019	10:45	HHFW10	HH	1	A	15	15	202	Female back to nest
40001_VP_0857	20/05/2019	17:09	HHFW8	HH	1	A	15	15	529	Male nest provision
40001_VP_0858	20/05/2019	17:09	HHFW8	HH	2	A	15	30	123	Food pass male to female
40001_VP_0859	20/05/2019	17:10	HHFW8	HH	1	A	45	45	534	Male leaves nest
40001_VP_0860	20/05/2019	17:35	HHFW8	HH	1	A	15	15	261	Female wing stretch
40001_VP_0861_a	20/05/2019	17:45	HHFW8	HH	1	A	45	45	718	Female alarming, due to 2 RSG guys on Beinn Greidaig (they didn't realise nest was close)

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0861_b	20/05/2019	17:45	HHFW8	HH	1	B	60	60	686	
40001_VP_0862	20/05/2019	17:52	HHFW8	HH	1	A	30	30	625	Male nest provision
40001_VP_0863	20/05/2019	17:52	HHFW8	HH	1	A	45	45	521	Female away from nest
40001_VP_0864	20/05/2019	18:28	HHFW8	HH	1	A	120	120	1397	Male away from nest
40001_VP_0879	21/05/2019	08:12	HHFW4	HH	1	A	30	30	447	Male into nest with food
40001_VP_0880	21/05/2019	08:12	HHFW4	HH	1	A	15	15	147	Female food pass
40001_VP_0881_a	21/05/2019	08:24	HHFW4	HH	1	A	15	15	106	Female away from nest with food- height changes not marked but put in anyway
40001_VP_0881_b	21/05/2019	08:24	HHFW4	HH	1	B	15	15	230	
40001_VP_0881_c	21/05/2019	08:24	HHFW4	HH	1	A	15	15	104	
40001_VP_0882_a	21/05/2019	08:38	HHFW4	HH	1	A	15	15	226	Female returning to nest- again height changes not drawn so guessed
40001_VP_0882_b	21/05/2019	08:38	HHFW4	HH	1	B	15	15	170	
40001_VP_0882_c	21/05/2019	08:38	HHFW4	HH	1	A	15	15	170	



GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0882_d	21/05/2019	08:38	HHFW4	HH	1	B	45	45	612	
40001_VP_0882_e	21/05/2019	08:38	HHFW4	HH	1	A	15	15	286	
40001_VP_0883_a	21/05/2019	10:02	HHFW4	HH	1	A	15	15	280	Male in with food
40001_VP_0883_b	21/05/2019	10:02	HHFW4	HH	1	B	15	15	449	
40001_VP_0883_c	21/05/2019	10:02	HHFW4	HH	1	A	30	30	177	
40001_VP_0883_c	21/05/2019	10:02	HHFW4	HH	1	A	30	30	175	
40001_VP_0884	21/05/2019	10:02	HHFW4	HH	1	A	30	30	226	Male food pass
40001_VP_0885	21/05/2019	10:02	HHFW4	HH	1	A	15	15	185	Female food pass
40001_VP_0886	22/05/2019	10:41	HHFW10	HH	1	A	15	15	159	Male in with food
40001_VP_0887_a	22/05/2019	10:41	HHFW10	HH	1	A	30	30	202	Male around nest area
40001_VP_0887_b	22/05/2019	10:41	HHFW10	HH	1	B	45	45	603	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0887_c	22/05/2019	10:41	HHFW10	HH	1	A	15	15	240	
40001_VP_0888	22/05/2019	10:52	HHFW10	HH	1	A	30	30	127	Male away from nest
40001_VP_0889_a	22/05/2019	11:01	HHFW10	HH	1	A	15	15	255	Male passed nesting area
40001_VP_0889_b	22/05/2019	11:01	HHFW10	HH	1	B	30	30	214	
40001_VP_0889_c	22/05/2019	11:01	HHFW10	HH	1	A	15	15	72	
40001_VP_0890	22/05/2019	12:32	HHFW10	HH	1	A	30	30	287	Male away from nest
40001_VP_0891	22/05/2019	12:47	HHFW10	HH	1	A	30	30	481	
40001_VP_0892	22/05/2019	14:45	HHFW9	HH	1	A	30	30	240	Female
40001_VP_0893	22/05/2019	15:13	HHFW9	HH	1	A	15	15	420	Female short flight around nest area
40001_VP_0894	22/05/2019	15:14	HHFW9	HH	1	A	15	15	160	Male short flight around nest area

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0895	22/05/2019	16:40	HHFW9	HH	1	A	120	120	2016	Male away from nest
40001_VP_0896	23/05/2019	15:13	HHFW10	HH	1	A	15	15	259	Male in with food
40001_VP_0897_a	02/06/2019	17:43	HHFW4	HH	1	A	15	15	200	Male in with food
40001_VP_0897_b	02/06/2019	17:43	HHFW4	HH	1	B	30	30	140	
40001_VP_0897_c	02/06/2019	17:43	HHFW4	HH	1	A	15	15	612	
40001_VP_0897_d	02/06/2019	17:43	HHFW4	HH	1	B	15	15	912	
40001_VP_0897_e	02/06/2019	17:43	HHFW4	HH	1	A	15	15	292	
40001_VP_0898	03/06/2019	14:15	HHFW9	HH	1	A	75	75	810	Male into nest briefly then away
40001_VP_0899_a	03/06/2019	18:32	HHFW10	HH	1	B	15	15	179	Male in with food
40001_VP_0899_b	03/06/2019	18:32	HHFW10	HH	1	A	15	15	79	
40001_VP_0900_a	04/06/2019	08:15	HHFW9	HH	1	A	60	60	421	Male in with food then away

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0900_b	04/06/2019	08:15	HHFW9	HH	1	B	15	15	198	
40001_VP_0900_c	04/06/2019	08:15	HHFW9	HH	1	A	45	45	534	
40001_VP_0903	04/06/2019	08:22	HHFW9	HH	1	A	30	30	337	Female off nest
40001_VP_0904	04/06/2019	08:35	HHFW9	HH	1	A	45	45	436	Female back to nest
40001_VP_0905	04/06/2019	08:50	HHFW9	HH	1	A	60	60	677	Female off then back to nest
40001_VP_0906	04/06/2019	09:41	HHFW9	HH	1	A	30	30	365	Female off to perch
40001_VP_0907	04/06/2019	09:43	HHFW9	HH	1	A	60	60	750	Female to perch
40001_VP_0908	04/06/2019	09:45	HHFW9	HH	1	A	30	30	396	Female back to nest
40001_VP_0909	04/06/2019	10:22	HHFW9	HH	1	A	90	90	1553	Male into nest then off
40001_VP_0910	04/06/2019	10:23	HHFW9	HH	1	A	60	60	977	Female follows male
40001_VP_0911	04/06/2019	10:55	HHFW9	HH	1	A	30	30	302	Female returns to nest
40001_VP_0912_a	04/06/2019	17:07	HHFW1 1	HH	1	B	45	45	627	Male into nest & food pass

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0912_b	04/06/2019	17:07	HHFW1 1	HH	1	A	30	30	394	
40001_VP_0912_c	04/06/2019	17:07	HHFW1 1	HH	1	B	30	30	435	
40001_VP_0913	04/06/2019	17:09	HHFW1 1	HH	1	A	15	15	241	Female takes food to eat
40001_VP_0914	04/06/2019	17:12	HHFW1 1	HH	1	A	30	30	499	Female returns to nest
40001_VP_0915_a	10/06/2019	15:10	HHFW1 1	HH	1	B	30	30	961	Male with food
40001_VP_0915_b	10/06/2019	15:10	HHFW1 1	HH	1	A	15	15	211	Female takes food from male and flies to plantation edge
40001_VP_0916	10/06/2019	15:11	HHFW1 1	HH	1	A	15	15	229	
40001_VP_0917_a	10/06/2019	15:11	HHFW1 1	HH	1	A	15	15	322	Male away from nest
40001_VP_0917_b	10/06/2019	15:11	HHFW1 1	HH	1	B	45	45	1025	

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0918	10/06/2019	15:18	HHFW1 1	HH	1	A	15	15	223	Female back to nest
40001_VP_0919_a	10/06/2019	18:56	HHFW9	HH	1	B	30	30	992	Male in with food then off to perch
40001_VP_0919_b	10/06/2019	18:56	HHFW9	HH	1	A	45	45	472	
40001_VP_0920	10/06/2019	18:57	HHFW9	HH	1	A	15	15	106	Female off nest with food
40001_VP_0921_a	10/06/2019	19:02	HHFW9	HH	1	A	15	15	221	Female back to nest
40001_VP_0921_b	10/06/2019	19:02	HHFW9	HH	1	B	30	30	229	
40001_VP_0921_c	10/06/2019	19:02	HHFW9	HH	1	A	15	15	276	
40001_VP_0922	26/06/2019	16:14	HHFW9	HH	1	A	45	45	411	Male, hunting and interaction with GB
40001_VP_0923	27/06/2019	10:12	HHFW1 0	HH	1	A	120	120	423	Male hunting
40001_VP_0924	27/06/2019	10:38	HHFW1 0	HH	1	A	60	60	448	Male hunting
40001_VP_0925	27/06/2019	10:59	HHFW1 0	HH	1	A	45	45	324	Male hunting

GISID	Date	Time	VP	Species	Count	Height Band	Seconds	Total Seconds	Length	Notes
40001_VP_0926_a	27/06/2019	12:08	HHFW10	HH	1	A	75	75	622	Short display flight from male
40001_VP_0926_b	27/06/2019	12:08	HHFW10	HH	1	B	75	75	950	
40001_VP_0926_c	27/06/2019	12:08	HHFW10	HH	1	C	255	255	970	
40001_VP_0927	25/06/2019	13:40	HHFW9	HH	1	A	135	135	2792	Mature hunting through survey area

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