

APPENDIX V2-5.1 – ORNITHOLOGY TECHNICAL REPORT APRIL 2016 TO MARCH 2019

2021

Fort Augustus to Skye Overhead Line Project
Report on Ornithological Surveys
April 2016 to March 2019

n r p NATURAL RESEARCH
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Introduction

1. This report details the ornithological survey work undertaken on the route of the LT91 Fort Augustus to Skye Overhead Line Project (hereafter referred to as the Proposed Development) by Natural Research (Projects) Ltd (NRP) between April 2016 and March 2019. Although fieldwork is on-going, the results of field observation data up to, and including, 31 March 2019 are presented here.
2. The objectives of the study were to:
 - Map the distribution of breeding birds, including scarce breeding species listed in Annex 1 of the EU Birds Directive (2009/147/EEC) on the Conservation of Wild Birds ('the Birds Directive') or Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (WCA);
 - Quantify the level of bird flight activity by selected breeding and foraging birds of high conservation importance; and
 - Record the presence and abundance of selected other birds of conservation importance (those listed on the Red List of Birds of Conservation Concern (Eaton *et al.*, 2015) or in Biodiversity Action Plans (BAPs)).
3. This report does not include the survey locations or data previously reported on in the LT200 Quoich to Aberchalder 132 kV Woodpole Overhead Line Project Environmental Assessment (SSE, 2019).

Desk Study and Consultation

Desk-based Research and Data Sources

4. A desk study was undertaken to collate existing bird records and data. Distribution and abundance data were collected from the following consultees and published sources:
 - NatureScot, including Sitelink (online information about designated sites);
 - The Royal Society for the Protection of Birds (RSPB);
 - UK Biodiversity Action Plan (BAP);
 - Scottish Biodiversity List (Scottish Biodiversity Forum, 2013);
 - National Biodiversity Network (NBN) Gateway website;
 - Birds of Conservation Concern (BoCC) (Eaton *et al.*, 2015);
 - International Union for Conservation of Nature (IUCN) red list of threatened species; and

- Other surveyors working in the vicinity (Ellendale Environmental, 2018).
5. The Proposed Development is located near to parts of the Cuillins Special Protection Area (SPA) and component lochs of the West Inverness-shire Lochs SPA. The Cuillins SPA is classified for breeding golden eagle (8 pairs) and the West Inverness-shire Lochs SPA for breeding black-throated diver and common scoter (on average 6.6 pairs and 7.8 pairs per annum respectively).
 6. Golden eagles are present on their ranges throughout the year, whilst black-throated divers and common scoters are only present during the breeding season (April to August).

Study Areas and Survey Periods

7. The study area for ornithological surveys relevant to the Proposed Development is situated in open upland moorland, rough grazing and commercial conifer plantation. The majority of the route contains the existing 132 kV steel lattice transmission line and is adjacent to some components of the SPAs (Figure 1).
8. Two overlapping survey areas were used for ornithology surveys. Surveys over the first area (SA1) were completed between April and September 2016 (Figure 2). Surveys were then carried out from one FVP during 2017 to gather information on the use of the Kylerhea narrows by white-tailed eagles. Golden eagle activity was also noted given the vicinity of a known eyrie. A full year of surveys was completed over the second area (SA2) (Figure 3) between March 2018 and March 2019.
9. A suite of surveys are currently ongoing to update the SA2 survey data; and these are expected to be completed by August 2021. Surveys include Vantage Point watches, Moorland Breeding Bird surveys and Scarce Breeding Bird surveys.
10. Additionally, further VP watches are currently ongoing to update information on black-throated diver and common scoter flights that may pass over the transmission line route between component lochs of the West Inverness-shire Lochs SPA, these are expected to be completed by August 2021.
11. Finally, a suite of new surveys are being undertaken on the Waternish peninsula (Section 0). Surveys include Moorland Bird surveys, Scarce Breeding Bird surveys and Corncrake surveys and these are expected to be completed by August 2021.

SA1

12. SA1 was designed specifically to focus on gathering information on the movements of the divers and scoters within, between and in the surrounding area of the West Inverness-shire Lochs SPA. This also covered the open sea loch areas to the west of the West Inverness-shire Lochs SPA. SA1 surveys also included gathering information on the use of the area by red-throated divers during the breeding season. Watches were continued into September to allow for the possibility of birds lingering after breeding exploring potential breeding locations for the next year.
13. Access to areas around the West Inverness-shire Lochs SPA was not possible, therefore a programme of surveys from publicly accessible areas was designed to collect data on how these species used the main lochs of the SPA. As flights by these species are most likely to occur where the intervening topography is lowest (these species follow the lowest topography to minimise effort), and they will also fly along glens and lochs to reach other large waterbodies in the area and the sea, then use of publicly accessible areas did not affect the quality or quantity of data collected (Figure 2).

SA2

14. As some bird species range over large areas and are therefore potentially vulnerable to the effects of a development a considerable distance away, SA2 encompassed a series of survey boundaries extending up to 6 km from the Proposed Development to allow data gathering for a number of species identified as present and potentially vulnerable. These boundaries defined the study area for surveys of certain species or for a particular survey method i.e. 500 m for flight activity and breeding waders; 1.5 km for black grouse; 2 km for breeding raptors; and, 6 km for golden eagle and white-tailed eagle breeding sites (Figures 1 & 3). Furthermore, surveys for possible aggregations of wintering waders and wildfowl were completed in a couple of locations

Field Survey Methods

15. The field surveyors were A. Ash (AA), S. Bentall (SB), D. Cameron (DJC), J. Clarke (JAC), G. Connelly (GC), B. Dunlop (BJD), P. Espin (PE), F. Leckie (FL), A. MacCormick (AMC), D. Moloney (DM), M. Moloney (MM), R. Stakim (RAS), and E. Weston (EDW). Field surveyors received training prior to and during survey work which included the various survey methods, techniques to minimise fieldworker effects on bird detection and the classification of bird behaviour. Emphasis was placed on the importance of carrying out surveys in a

systematic and standardised way to enable direct comparison of data from different survey periods and sites.

Flight Activity

16. In all survey periods information on flight activity was collected during timed watches from focal vantage points (FVPs). These FVP watches were based on the standard guidance for onshore wind farms (Band *et al.*, 2007; SNH, 2014).

SA1 April to September 2016

17. For SA1 three FVPs were selected to collect data on the use of Loch Cuaich and Inner Loch Hourn (Figure 2, Table 1).

Table 1. Location of Focal Vantage Points used for SA1 in April to September 2016.	
FVP	Grid Reference
4	NH 04400 01830
5	NG 94300 07000
12	NH 00161 03266

18. To ensure the best opportunities to observe flights, when weather conditions allowed, watches were completed early in the morning or in the late afternoon / evening when these species are known to be more active. Approximately 6 hours were completed from each FVP per month (Table 2).

19. Where possible watches were paired to allow surveyors to work in tandem, located at 'adjacent' FVPs along the loch. It was hoped that this would allow surveyors to communicate any birds sighted to the adjacent surveyor to potentially obtain more information on the flights.

20. The airspace visible from the FVP was scanned by the observer for birds in flight. Flight routes were mapped and the height above water level estimated in height bands: <10 m, 10-30 m, 30-50 m, 50-100 m, 100-150 m and >150 m. Birds seen on the water during a watch were recorded on a map and their behaviour noted. If not continually in view, then attempts were made to re-locate these birds every 15 minutes.

Table 2. Watch effort from FVPs during April to September 2016 split into early morning (E) and late afternoon (L) watch periods.								
FVP	Watch Period	Apr	May	Jun	Jul	Aug	Sep	Total
4	E	3.00	3.00	3.00	3.00	3.00	3.00	18.00
	L	3.00	3.00	3.00		6.00	3.00	18.00
	Total	6.00	6.00	6.00	3.00	9.00	6.00	36.00
5	E	3.00	3.00	3.00	3.00	3.00	3.00	18.00
	L	3.00	3.00	3.00	3.00	3.00	3.00	18.00
	Total	6.00	6.00	6.00	6.00	6.00	6.00	36.00
12	E		3.00	3.00	3.00	3.00	3.00	15.00
	L		3.00	3.00		6.00	3.00	15.00
	Total		6.00	6.00	3.00	9.00	6.00	30.00

SA2

February 2017 to August 2017

21. Watches from locations overlooking the Kylerhea Narrows were undertaken, to collect data on flight activity and perch locations of the white-tailed eagles which feed in this area. Information on the locations of the perches used by white-tailed eagles around Kylerhea was provided by the RSPB. Some checks of suitable forestry within appropriate buffers of the preferred route option were also completed.
22. Surveys commenced in February when this species start their breeding cycle. Two watches amounting to six hours of observation per month was completed, totalling 45.33 hours overall. When possible, watches were undertaken during periods of rising tides, when most activity was likely to occur (Table 3).
23. Watches were made from a number of vantage points depending on the weather and light conditions. Flight lines, durations and elevation above ground level were recorded.

Table 3. Date and times of focal watches for white-tailed eagle at Kylerhea Narrows.						
Date	Start Time	End Time	Duration	Low Tide*	High Tide*	Tide State
22/02/17	1300	1600	3.00	0947	1613	rising
23/02/17	1300	1600	3.00	1039	1656	rising
21/03/17	1330	1630	3.00	0557	1246	falling
22/03/17	1325	1625	3.00	0733	1422	turning
23/03/17	0830	1130	3.00	0905	1534	rising

Table 3. Date and times of focal watches for white-tailed eagle at Kylerhea Narrows.						
Date	Start Time	End Time	Duration	Low Tide*	High Tide*	Tide State
10/04/17	1405	1705	3.00	1316	1909	rising
11/04/17	0800	1100	3.00	0126	0719	falling
16/05/17	1810	2110	3.00	1642	2229	rising
17/05/17	0630	0930	3.00	0508	1102	rising
14/06/17	1705	2005	3.00	1625	2208	rising
15/06/17	0555	0855	3.00	0451	1040	rising
11/07/17	1555	1915	3.33	1458	2038	rising
12/07/17	0510	0810	3.00	0321	0900	rising
22/08/17	1445	1745	3.00	1348	1906	rising
23/08/17	1430	1730	3.00	1431	2016	rising
*from http://tides.willyweather.co.uk/he/highland/kylerhea						

March 2018 to March 2019

24. For SA2 six FVPs were selected to collect data on the flight activity of certain species considered potentially susceptible to collision, over the route of the Proposed Development plus a 500 m buffer (Figure 3, Table 4). Data were collected for *Target A* species (species drawn from those listed on Annex 1 of the Birds Directive and Schedule 1 of the WCA) with surveys targeted to areas identified in previous survey work and desk studies as being possibly used by species of conservation concern, with an emphasis on golden eagle, however other species including white-tailed eagle, red-throated diver and hen harrier were also recorded. The watches were also useful to help identify any areas of critical foraging habitat for species susceptible to displacement.

Table 4. Location of Focal Vantage Points used for SA2 between March 2018 to March 2019.			
FVP	Grid Reference	Section visible	Includes SPA birds
1	NG 44468 39294	1	Yes
2	NG 48297 30700	1 & 2	Yes
3	NG 57300 27720	2	Yes
4	NG 79489 21777	3 & 4	No
5	NG 87143 15302	4	No
9	NG 77610 20323	3	No

25. These FVP watches followed the standard guidance for onshore wind farms (Band *et al.*, 2007; SNH, 2014). FVPs were selected using a mixture of GIS analysis and field trials, with the

aim of maximising ground visibility within the 500 m survey buffer of the preferred alignment.

26. For golden eagle the FVP selection was based on data provided by SNH of territories identified as active during the national survey of golden eagles in 2015, and that have areas of ground which might be used regularly which lie within an approximate 2 km radius of the preferred alignment and included territories within the Cuillins SPA. Four territories were identified as potentially having part of its range which might be used regularly, and which lies within an approximate 2 km radius of the Proposed Development, a further four territories were beyond 2 km but may include areas within the buffers of the Proposed Development within their ranges.
27. At Kyleshea the FVP was focussed on white-tailed eagle using the Narrows in a continuation of the work carried out from February to August 2017, with work commencing in February 2018 and carrying on until February 2019.
28. Survey effort aimed to carry out two watches totalling six hours per month, however due to access constraints and weather this was not always possible. A minimum of 30 hours per season was completed with a total of between 67 and 85 hours carried out from each FVP through the year 2018 to 2019 (Table 5 & 6).

Table 5. FVP survey effort during 2018 breeding season.								
FVP	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
1	-	6.00	6.00	6.00	6.00	3.00	6.33	33.33
2	-	5.00	7.00	6.00	6.00	6.00		30.00
3	-	5.00	7.00	6.00	6.00	6.00	6.00	36.00
4	6.00	6.00	6.00	6.00	12.00	6.00	4.00	46.00
5	-	3.00	12.00	6.00	6.00	3.00	6.00	36.00
9	-	1.00	6.00	6.00	6.00	6.00	6.00	31.00

Table 6. FVP survey effort during 2018-19 non-breeding season.								
FVP	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	6.67	8.50	8.50	5.50	6.50	3.00	3.00	41.67
2	9.00	8.00	6.00	6.00	6.00	6.00		41.00
3	6.00	6.00	6.00	6.00	6.00	6.00		36.00
4	9.00	6.00	4.83	5.50	7.67	6.00		39.00

Table 6. FVP survey effort during 2018-19 non-breeding season.								
FVP	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
5	6.00		4.00	9.50	6.50		5.00	31.00
9	3.00	9.00	6.00	5.50	5.75	3.00	9.75	42.00

Breeding Bird Survey

29. Surveys were carried out for SA2 in 2018.

30. Breeding bird surveys were targeted on open habitats with the potential to support breeding waders, mainly in the upland areas along the preferred alignment between Dunvegan and Glen Varigill, and the areas of suitable habitat around Glen Elg (Figure 4). Surveys were undertaken within 500 m of the preferred alignment in suitable upland habitats. Four visits were undertaken between April and July 2018; all areas of suitable habitat were approached to within around 100 m, following the Brown & Shepherd method for surveying upland waders (Brown & Shepherd, 1993).

Table 7. Details of surveys for breeding waders in 2018.										
Date	Obs	Start time	Duration (hours)	Weather						Notes
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)	
22/04/18	PE	0800	1.42	10	100	SW	3	CLR	0.5	Visit 1
22/04/18	EDW	0800	1.42	10	100	SW	3	CLR	0.5	Visit 1
23/04/18	EDW	0745	1.50	8	600	SW	3	ILR	5	Visit 1
23/04/18	PE	0745	1.50	8	600	SW	3	ILR	10	Visit 1
23/04/18	EDW	1010	2.08	8	600	SW	3	ILR	5	Visit 1
23/04/18	PE	1010	1.78	8	600	SW	3	ILR	10	Visit 1
23/04/18	EDW	1250	2.00	7	700	SW	3	nil	10	Visit 1
23/04/18	PE	1652	0.38	10	600	SW	3	CLR	10	Visit 1
23/04/18	AA	1652	0.38	10	600	SW	3	CLR	2	Visit 1
23/04/18	EDW	1700	0.17	10	600	SW	3	CLR	5	Visit 1
24/04/18	PE	1450	2.58	5	1000	SW	3	ILR	10	Visit 1
24/04/18	AA	1455	2.25	5	1000	SW	3	ILR	10	Visit 1
25/04/18	AA	0910	3.58	4	500	SW	4	ILR	10	Visit 1
25/04/18	PE	0920	6.00	7	800	SW	3	ILR	10	Visit 1
25/04/18	EDW	0930	3.75	8	500	SW	4	ILR	10	Visit 1
25/04/18	EDW	1430	2.00	8	600	SW	5	nil	10	Visit 1
26/04/18	PE	1030	2.17	5	600	W	4	ILR	10	Visit 1

Table 7. Details of surveys for breeding waders in 2018.										
Date	Obs	Start time	Duration (hours)	Weather						Notes
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)	
26/04/18	EDW	1030	2.17	5	600	W	4	nil	10	Visit 1
26/04/18	AA	1030	2.17	5	600	W	4	nil	10	Visit 1
27/04/18	PE	1005	2.67	5	1000	SW	2	nil	20	Visit 1
27/04/18	EDW	1020	4.00	5	2000	SW	3	nil	20	Visit 1
13/05/18	MM	0855	6.17	7	3000	S	1	nil	4	Visit 2
13/05/18	DM	0855	6.17	7	3000	S	1	nil	4	Visit 2
13/05/18	EDW	1500	3.92	7	2000	S	4	nil	20	Visit 2
14/05/18	MM	0910	3.00	9	1500	SE	2	nil	3	Visit 2
14/05/18	DM	0910	3.17	9	1500	SE	2	nil	3	Visit 2
14/05/18	EDW	1025	5.08	10	2000	SW	3	nil	20	Visit 2
14/05/18	BJD	1030	5.00	10	1000	SW	2	nil	3	Visit 2
15/05/18	EDW	0815	1.25	10	500	SW	3	ILR	1	Visit 2
17/05/18	EDW	1240	2.67	4	1000	SW	3	nil	20	Visit 2
18/05/18	EDW	1525	2.92	10	1000	SW	4	nil	20	Visit 2
19/05/18	EDW	1100	4.00	3	1000	SW	5	nil	20	Visit 2
19/05/18	AA	1530	2.08	5	1000	S	4	nil	10	Visit 2
21/05/18	AA	1505	1.25	10	600	SE	2	CLR	5	Visit 2
04/06/18	EDW	0830	2.58	10	100	N	3	nil	2	Visit 3
05/06/18	EDW	0950	3.67	10	600	SW	3	nil	20	Visit 3
05/06/18	FL	1145	4.25	9	1000	nil	0	nil	20	Visit 3
06/06/18	FL	0914	5.27	5	1500	SW	1	nil	20	Visit 3
06/06/18	FL	1500	0.75	5	1500	SW	1	nil	20	Visit 3
07/06/18	EDW	1300	2.00	10	600	W	3	nil	10	Visit 3
08/06/18	EDW	1630	3.00	5	1000	S	1	nil	20	Visit 3
24/06/18	AA	1240	3.58	8	1000	SW	4	nil	10	Visit 3
25/06/18	DM	0855	6.75	8	1500	SW	2	nil	4	Visit 3
25/06/18	AA	1125	5.17	1	1000	W	4	nil	10	Visit 3
26/06/18	AA	0805	4.33	3	1000	N	2	nil	10	Visit 3
26/06/18	AA	1255	0.25	3	1000	N	2	nil	10	Visit 3
26/06/18	AA	1620	1.00	3	1000	N	2	nil	10	Visit 3
12/07/18	SB	1020	7.93	9	1000	N	2	nil	20	visit 4
13/07/18	SB	0945	6.33	7	3000	S	3	nil	20	visit 4
15/07/18	AA	0855	4.25	10	600	W	2	ILR	5	visit 4

Table 7. Details of surveys for breeding waders in 2018.										
Date	Obs	Start time	Duration (hours)	Weather						Notes
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)	
18/07/18	AMC	1020	6.17	9	800	SW	3	nil	30	visit 4
18/07/18	AA	1030	3.67	8	1000	W	2	nil	10	visit 4

*Precipitation codes: Continuous/Intermittent + Light/Heavy + Rain/Snow/Hail/Fog

Scarce Breeding Bird Survey

SA1

31. Observations were carried out for feeding black-throated diver, red-throated diver and common scoters on waterbodies between Loch Cuaich and the sea at Loch Hourn from public roads and accessible footpaths during 2016. These were completed with the aim to gain information on the use of the area by these species and possible breeding territories. Any birds seen were watched until lost from view and their location and behaviour was recorded. Twenty-five searches were completed during the period April to September (Table 8).

Table 8. Observation effort and survey conditions for surveys for black-throated divers, common scoters and red-throated divers on waterbodies in 2016.										
Date	Obs	Start time	Duration (hours)	Weather						Notes
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)	
19/04/16	DJC	1000	6.67	5	1000	SW	3	nil	6	Glenelg, Arnisdale, Loch Hourn
21/04/16	FL	1125	4.08	1	1000	W	2	nil	10	Glenelg to Loch Hourn
27/04/16	DJC	0835	5.00	10	600	W	2	IHS	6	Glenelg to Loch Hourn
11/05/16	DJC	0920	1.08	0	-	E	6	nil	6	Kinloch Hourn Loch Cuaich
12/05/16	DJC	0845	6.00	2	1000	N	4	nil	6	Glenelg Loch Hourn Barrisdale
12/05/16	FL	0915	2.25	0	-	E	3	nil	10	Loch Cuaich
25/05/16	RAS	0900	3.00	5	1000	ENE	4	nil	5	Loch Cuaich to Kinloch Hourn
25/05/16	RAS	1730	3.00	7	1000	ENE	5	nil	5	Kinloch Hourn to West Glen Quoich
07/06/16	DJC	0900	2.00	2	1000	W	2	nil	6	Kinloch Hourn Loch Cuaich
08/06/16	JAC	1400	2.50	7	1000	NE	2	nil	10	Loch Cuaich
09/06/16	DJC	1300	4.00	3	1000	E	2	nil	3	Glenelg Loch Hourn

Table 8. Observation effort and survey conditions for surveys for black-throated divers, common scoters and red-throated divers on waterbodies in 2016.										
Date	Obs	Start time	Duration (hours)	Weather						Notes
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)	
13/06/16	DJC	1545	1.25	10	800	W	3	Nil	6	Loch Cuaich
14/06/16	GC	1000	2.50	6	900	E	2	nil	5	Glenelg
04/07/16	DJC	1135	2.50	10	500	WSW	3	IHR	6	Loch Cuaich Kinloch Hourn to Skiary
06/07/16	DJC	0859	2.67	1	900	W	3	nil	6	Loch Cuaich
07/07/16	GC	1100	1.50	10	500	W	4	ILR	4	Loch Cuaich
20/07/16	GC	0900	3.00	10	200	SW	2	CHR	2	Loch Cuaich
20/07/16	DJC	1615	3.00	10	400	SW	4	IHR	3	Loch Hourn to Corran
02/08/16	DJC	1330	1.75	10	800	E	4	Nil	6	Loch Cuaich to Kinloch Hourn
04/08/16	JAC	1045	5.00	10	600	W	4	nil	10	Glenelg Loch Hourn
05/08/16	JAC	0930	1.50	9	1000	nil	0	nil	10	Kinloch Hourn to Loch Cuaich
18/08/16	DJC	1420	1.75	3	1000	E	1	Nil	6	Loch Cuaich
06/09/16	GC	1100	4.00	6	600	SW	3	nil	5	Glenelg
12/09/16	JAC	1130	0.50	10	300	SW	4	IHR	2	Loch Cuaich
21/09/16	JAC	0800	5.00	8	800	SW	3	ILR	10	Glenelg Loch Hourn

*Precipitation codes: Continuous/Intermittent + Light/Heavy + Rain/Snow/Hail/Eog

SA2

32. Targeted surveys to locate breeding attempts by scarce breeding raptors and owls were undertaken up to a distance of 2 km from the preferred alignment. Surveys focussed on areas of potential nesting habitat for the species likely to occur. These species included red-throated diver, black-throated diver, common scoter, white-tailed eagle, hen harrier, golden eagle, osprey, merlin, peregrine, barn owl and short-eared owl. Surveys followed the species-specific methods set out in Hardy *et al.* (2013). The survey areas were informed by consultation with RSPB, SNH and local raptor workers, along with incidental data collected during the surveys in 2016 and 2017. Sixty-nine searches were completed during the period April to August 2018 plus four over the winter October 2018 to March 2019 (Table 9).

Table 9. Survey effort and conditions for surveys for scarce breeding birds in 2018.

Date	Observer	Start	Duration (hours)	Search species* & summary	Weather					
					Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)
09/02/18	DJC	1535	1.00	(EA WE)	8	700	SW	3	IHS	4
21/04/18	PE	1145	1.25	(BV CX)	7	2000	SW	1	nil	10
23/04/18	EDW	1610	1.00	(HH WE)	10	600	SW	3	CLR	3
24/04/18	AA	1250	2.00	(WE)	4	700	SW	4	CLR	2
25/04/18	AA	1310	3.50	(WE)	6	1000	SW	4	IHR	10
26/04/18	EDW	1430	3.50	(WE HH)	10	700	SW	3	ILR	10
26/04/18	PE	1430	3.00	(HH WE)	8	600	W	4	IHR	10
27/04/18	EDW	1100	1.00	(GK RH) Nil result	5	2000	SW	3	nil	20
28/04/18	AA	0815	7.42	(RH) Nil result	4	1000	W	2	nil	10
12/05/18	EDW	0805	3.00	(HH)	2	1000	SW	3	nil	20
13/05/18	BJD	1045	0.50	(HH EA)	6	2000	SE	3	nil	5
13/05/18	DM	1530	3.00	(HH WE EA)	2	3000	SSW	1	nil	4
13/05/18	MM	1545	3.00	(HH)	1	3000	SSW	1	nil	4
14/05/18	DM	1230	3.00	(WE HH) Nil result	10	1000	S	4	CLR	2
14/05/18	MM	1235	3.00	(HH SE) Nil result	10	1000	S	4	CLR	2
14/05/18	BJD	1540	2.83		10	1000	SW	2	ILR	3
15/05/18	DM	1305	4.17	(HH)	8	1500	WSW	3	nil	4
15/05/18	MM	1315	4.08	(HH)	6	1500	WSW	2	nil	4
15/05/18	EDW	1530	0.50	(RH) Nil result	10	300	SW	2	IHR	0.5

15/05/18	EDW	1720	1.17	(EA WE)	8	800	SW	3	nil	10
15/05/18	MM	1735	1.67	(HH) Nil	3	2000	WSW	2	nil	4
17/05/18	BJD	1115	1.42	(HH WE) Nil	0	-	NW	1	nil	5
17/05/18	BJD	1600	1.50	(HH EA) Nil	0	-	NW	1	nil	5
17/05/18	EDW	1605	3.00	(HH)	0	-	SW	3	nil	20
17/05/18	AA	1925	1.58	(RH) Nil	2	1000	SW	2	nil	10
18/05/18	EDW	1020	3.92	(HH)	10	700	SW	4	ILR	10
18/05/18	AA	1105	0.92	(RH GK)	10	1000	SW	2	nil	10
18/05/18	AA	1505	1.92	(RH GK)	9	1000	SW	2	nil	10
19/05/18	AA	1305	1.75	(HH)	3	1000	S	4	nil	10
19/05/18	EDW	1530	1.25	(HH) Nil	4	1000	SW	6	nil	20
22/05/18	AA	0715	8.17	(HH RH ML)	5	700	SE	2	nil	10
22/05/18	EDW	0930	6.25	(HH) Nil	10	1000	SW	3	nil	20
23/05/18	AA	1010	4.08	(EA) Nil	2	1000	S	2	nil	10
23/05/18	EDW	1040	4.00	(EA RH)	0	-	SW	3	nil	20
04/06/18	FL	1220	2.00	(RH)	5	400	W	2	nil	20
04/06/18	EDW	1230	3.00	(HH)	5	400	N	2	nil	20
06/06/18	FL	1430	0.50	(RH) Nil	5	1500	SW	1	nil	20
25/06/18	AA	0810	3.08	(HH RH) Nil	2	1000	W	4	nil	10
26/06/18	DM	0915	3.25	(HH)	4	2000	NW	1	nil	5
26/06/18	DM	1305	4.00	(HH) No activity at nest site	6	2000	E	1	nil	5
27/06/18	DM	0615	3.00	(RH)	2	1000	SW	1	nil	5
27/06/18	AA	0905	1.67	(RH)	2	1000	S	2	nil	10
27/06/18	DM	0925	3.00	(HH) Nil	4	3000	SSW	1	nil	5

27/06/18	BJD	1115	1.00	(EA)	0	-	S	2	nil	5
27/06/18	AA	1130	1.42	(RH) Nil	1	1000	S	2	nil	10
27/06/18	DM	1245	3.00	(HH) Nil	1	3000	SSW	1	nil	5
27/06/18	DM	1635	2.42	(RH) Nil	0	-	SSW	1	nil	5
28/06/18	AA	0730	4.42	(RH) Nil	0	-	NW	2	nil	10
28/06/18	DM	0850	3.00	(HH ML) Nil	0	-	ESE	1	nil	5
28/06/18	BJD	1155	5.33	(HH ML) Nil	0	-	N	2	nil	5
28/06/18	DM	1230	3.00	(HH ML) Nil	0	-	SE	1	nil	5
28/06/18	AA	1320	3.42	(RH) Nil	0	-	N	2	nil	10
28/06/18	BJD	1715	1.50	(EA)	0	-	N	2	nil	5
29/06/18	AA	0810	3.50	(HZ OP)	3	1000	S	3	nil	10
29/06/18	BJD	0900	2.50	(RH BV) Nil	0	-	N	2	nil	5
29/06/18	BJD	1130	3.00	(EA) Nil	0	-	nil	0	nil	5
29/06/18	BJD	1430	3.25	(BV CX)	0	-	NE	2	nil	5
30/06/18	SB	0445	1.75	(BO) None suitable	0	-	-	0	nil	20
30/06/18	SB	1200	3.00	(BO) one seen in Mar/Apr 2018	0	-	NW	1	nil	20
30/06/18	SB	1945	1.25	(HH)	1	1000	NW	1	nil	20
30/06/18	SB	2110	2.00	(BO)	2	1000	NW	1	nil	20
17/07/18	SB	1520	1.92	(HH)	9	900	W	2	nil	20
18/07/18	AA	0900	0.33	(RH)	10	1000	W	2	nil	10
19/07/18	SB	0540	3.33	(RH/BV)	9	500	SW	2	nil	15
21/07/18	AA	0815	4.00	(OP) no sig observations	8	1000	W	4	nil	10
25/07/18	SB	2040	1.00	(RH BV)	5	1200	S	1	nil	20

30/07/18	SB	1800	3.50	(RH)	4	1500	SW	2	nil	15
03/08/18	SB	0610	1.50	(RH)	10		S	2	CHF	1.5
13/08/18	SB	1405	5.00	(EA)	10	600	S	2	IHF	1
25/10/18	SB	0950	3.00	(WE)	10	400	SW	2	CLR	1
22/02/19	SB	1030	4.25	(EA WE) Nil	8	1400	S	6	nil	20
27/03/19	SB	0925	1.25	(WE) Nil	10	500	W	2	nil	5
28/03/19	SB	1245	4.00	(WE) Nil	10	600	W	4	nil	8

*BO – barn owl; BV - black-throated diver; CX – common scoter; EA – golden eagle; GK – greenshank; HH - hen harrier; HZ – Honey-buzzard; ML – merlin; OP – osprey; RH – red-throated diver; SE – short-eared owl; WE – white-tailed eagle

*Precipitation codes: Continuous/Intermittent + Light/Heavy + Rain/Snow/Hail/Fog

Coastal Bird Surveys and Winter Walkover Surveys

33. Focussed searches for breeding and wintering waders and waterfowl were carried out in areas identified through desk studies and consultations as being suitable for these species. These areas were confined to suitable habitat at the head of Loch Sligachan and head of Loch Ainort (Figure 4).
34. For breeding birds, surveys were in the same areas as for winter and followed methods outlined in Gilbert *et al.* (1998), *i.e.* three visits were undertaken between April and July (SNH, 2014). Coastal breeding sites including saltmarsh, grazing marshes, shingle beaches, dunes, rocky-shores and lowland grassland were surveyed.

Table 10. Survey for coastal birds 2018 and 2019.									
Date	Observer	Start time	Duration (hours)	Weather					
				Cloud (10ths)	Cloud Base (m)	Wind direction	Wind Force	Precipitation*	Visibility (km)
20/04/18	PE	1530	2.08	7	1000	S	3	nil	10
20/04/18	PE	1750	1.42	8	1000	SW	3	nil	10
13/05/18	BJD	0645	2.00	4	2000	S	1	nil	5
13/05/18	BJD	0900	1.75	10	2000	S	2	nil	5
07/06/18	FL	1330	2.00	8	2000	W	1	nil	20
18/01/19	SB	0945	0.58	8	800	E	3	CLS	12
18/01/19	SB	1515	0.50	10	800	E	2	CLR	10
13/02/19	SB	1535	0.75	10	800	S	6	nil	15
14/02/19	SB	1405	0.67	10	600	S	6	nil	12
11/03/19	SB	0930	0.50	7	1400	S	3	nil	30
11/03/19	SB	1020	0.58	4	1400	S	3	nil	30

*Precipitation codes: Continuous/Intermittent + Light/Heavy + Rain/Snow/Hail/Fog

Field Survey Results

35. Please note results are presented for the full survey area (Sections 1 to 4 and 6) except for those reported on in Technical Report for the LT200 Quoich to Aberchalder 132 kV Woodpole Overhead Line Project application (Section 5).

SPA Species – black-throated diver and common scoter

Abundance and Distribution

36. **Common scoters** were seen in Section 4 on one day in June 2018. A pair was seen away from the West Inverness-shire Lochs SPA but within the 2 km buffer of the proposed route on a small loch near Loch Cuiach. No other records of this species occurred during the surveys in 2016 or 2018 (Figure 5, Table 11).

37. **Black-throated divers** were seen on a number of occasions in Section 3 and 4 (Figure 5, Table 11).

38. During 2018 a pair was recorded on Loch Cuaich in June. Another pair was seen on Lochan na Saile, within the 2 km buffer of Section 3, in July 2018. There were no other records from this section.

39. During 2016 a number of records from the sea were noted: including an adult within the 2 km buffer of the proposed route on the inner parts of Loch Hourn near Skiary in April 2016; outwith the 2 km buffer of the proposed route a further ten records of individuals or pairs were made during April, May, June and July 2016 of birds in Loch Hourn and the sea to Glenelg Bay, they were loafing or feeding in this area.

Table 11. Sightings of common scoter and black-throated diver in 2016 and 2018.						
Species	Date	No. of birds	Time	Sex	Age	Notes
Common scoter	29/06/18	2	1611	MF	AD	Loafing
Black-throated diver	19/04/16	1	1231			Feeding
		1	1340	M		Feeding
	21/04/16	1	1400		AD	Loafing
		1	1500		AD	Feeding, loafing
	22/04/16	1	0734	F		Feeding, vocalise
	27/04/16	1	1125			Feeding
		1	1300	F	AD	Feeding
	12/05/16	2	1345	MF		Feeding
		2	1345	MF		Feeding
	09/06/16	1	1400			Feeding
	20/07/16	1	1739			Feeding, flying
26/06/18	2	1738	MF	AD	Loafing	
19/07/18	2	0756	MF	AD	Loafing	

Table 11. Sightings of common scoter and black-throated diver in 2016 and 2018.						
Species	Date	No. of birds	Time	Sex	Age	Notes
Black-throated diver	19/07/18	2	0756	MF	AD	Flying

Flight Activity

40. Two flights by black-throated diver were recorded during the 102 hours of observation from the three FVPs in 2016. A pair was seen in flight on Loch Cuaich in April, and an individual was seen flying there in June. Both flights were headed west and were within the 2 km buffer of the proposed route. The pair was noted as definitely headed in the direction of Kinloch Hourn and the sea at between 10-30 m and 30 – 50 m elevation but were lost from view in a snow squall (Figure 5, Table 12).

Table 12. Flight activity of common scoter and black-throated diver observed during FVP watches in 2016										
Species	FVP	Date	No. Birds	Time	<10m	10-30m	30-50m	50-100m	100-150m	>150m
Black-throated diver	4	25/04/16	2	1804		✓	✓			
	12	07/06/16	1	1450	✓					

SPA Species – golden eagle

Abundance and Distribution

41. Ornithological information obtained from SNH, the RSPB and local raptor group workers indicated that up to thirteen active golden eagle territories lie within 6 km of the Proposed Development. Five territories were identified as potentially having part of their range which might be used regularly within an approximate 2 km radius of the Proposed Development.
42. Six golden eagle territories were within the Cuillins SPA or within 6 km of the SPA and can therefore be considered as SPA birds as they may use it for foraging, whilst seven were further from the SPA boundary and so were considered as non-SPA birds.
43. During 2018 a number of nest locations were observed to attempt to confirm occupancy, with at least seven of these territories confirmed as active in 2018 (Confidential Figure 2).

Flight Activity

2018-2019 flights – SPA golden eagles

44. Twenty-five flights of golden eagle were recorded during the 218 hours of observation from FVPs 1, 2 and 3 between March 2018 and February 2019 (Figure 6, Table 13).

45. Of the five flights at FVP 1 two had some duration at less than 50 m elevation above ground level (a.g.l.) and one of these was within 500 m of the proposed OHL route. Of the fifteen flights at FVP 2, seven were at less than 50 m a.g.l. and six of these were within 500 m of the proposed OHL route. Of the five flights at FVP 3 three were at less than 50 m a.g.l. and two of these were within 500 m of the proposed OHL route. (Figure 6, Table 13).

Table 13. Flight activity of golden eagles from the SPA observed during FVP watches in 2018-2019.										
Records shown in red were observed outside the 500 m buffer.										
FVP	Date	No. Birds	Age	Sex	Time first seen	Height bands				
						<10m	10-30m	30-50m	50-150m	>150m
1	04/06/18	1			1733				✓	✓
	20/07/18	1	AD		1055				✓	
	04/09/18	1	IMM	M	1755					✓
	05/10/18	1	JUV		1534	✓	✓	✓		
	11/12/18	1	JUV		1234	✓				
2	28/03/18	1	SUB		1148	✓	✓	✓	✓	
		1	SUB		1158	✓	✓			
	19/04/18	1	AD		1309					✓
		1	AD		1620					✓
	15/05/18	1			0735		✓	✓		
		1			0755		✓			
	18/05/18	1	AD	F	1425	✓	✓	✓	✓	
	23/06/18	1	AD		1437				✓	✓
		1	AD	F	1451		✓	✓	✓	
		1	AD	F	1519				✓	✓
	27/09/18	1			1506	✓	✓			
	11/10/18	1			0949					✓
		1			1014				✓	✓
	18/11/18	1			1124					✓
1		JUV		1334					✓	
3	20/09/18	1	AD	M	1827					✓
	25/02/19	1	AD	M	1211					✓
		1	AD	F	1216	✓	✓			
		1	AD	F	1313	✓	✓			
		1	AD	F	1315		✓	✓	✓	

2018-2019 flights – non-SPA golden eagles

46. Forty-seven flights of golden eagle were recorded during the 225 hours of observation from FVPs 4, 5 and 9 between March 2018 and March 2019 (Figure 7, Table 14).

47. Of the eleven flights at FVP 4 eight had some duration at less than 50 m elevation above ground level (a.g.l.) and four of these were within 500 m of the proposed OHL route. Of the twenty-two flights at FVP 5, sixteen were at less than 50 m a.g.l. and twelve of these were

within 500 m of the proposed OHL route. Of the fourteen flights at FVP 9 five were at less than 50 m a.g.l. however no information has been provided as to the route of the proposed OHL in this vicinity yet (Figure 7, Table 14).

Table 14. Flight activity of non-SPA golden eagles observed during FVP watches in 2018-2019.										
Records shown in red were observed outside the 500 m buffer.										
FVP	Date	No. Birds	Age	Sex	Time first seen	Height bands				
						<10m	10-30m	30-50m	50-150m	>150m
4	08/02/18	1	AD	F	1011		✓	✓	✓	
		1	AD	F	1159		✓	✓	✓	
	28/03/18	1	AD	F	1755		✓			
	22/04/18	1	AD		1741					✓
		1	IMM		1742					✓
	29/10/18	1	SUB	F	1204					✓
		1	IMM	M	1354	✓	✓	✓	✓	
		1	IMM	M	1400	✓*				
		1	IMM	M	1429		✓	✓	✓	✓
	19/11/18	1			1457	✓	✓	✓	✓	✓
1				1218	✓	✓	✓			
5	28/03/18	1	SUB	M	1255		✓	✓	✓	✓
		1	AD,	F	1316		✓	✓	✓	✓
	24/04/18	0		F	1543				✓	
	29/04/18	1	AD	F	1012				✓	✓
		1	AD	F	1046			✓	✓	✓
		1	AD	M	1056		✓		✓	✓
		2	AD	MF	1152	✓				
	09/06/18	1			1137	✓				
		1			1137	✓				
	26/06/18	1	AD	F	1319					✓
	16/07/18	1	AD		1409			✓	✓	
		1	AD	M	1518				✓	✓
	30/09/18	1	JUV		1056		✓	✓	✓	
	08/11/18	1	AD	F	1249		✓	✓	✓	✓
		1	AD	M	1249				✓	✓
		1	AD	F	1306					✓
	17/12/18	1	AD	M	1155	✓				
1		AD	M	1209			✓	✓	✓	
25/03/19	2	AD	MF	1203		✓	✓	✓	✓	
	1	AD	M	1531			✓			
	1	AD	M	1558		✓	✓	✓	✓	
9	30/03/18	1	AD		935					
	24/04/18	2			1131					✓
	13/05/18	1	AD		1234					✓
		1	AD		1357					✓
		1	AD		1413					✓
	04/06/18	1	AD		1714				✓	
	10/10/18	1	IMM	M	1638					✓

Table 14. Flight activity of non-SPA golden eagles observed during FVP watches in 2018-2019.										
Records shown in red were observed outside the 500 m buffer.										
FVP	Date	No. Birds	Age	Sex	Time first seen	Height bands				
						<10m	10-30m	30-50m	50-150m	>150m
9	24/10/18	1	JUV		1243				✓	✓
	25/11/18	1	AD	M	1222				✓	✓
		1	AD	M	1231	✓			✓	
	09/01/19	1	IMM		1238			✓	✓	✓
	13/02/19	1	IMM		1009	✓	✓			
		1	IMM		1011		✓	✓	✓	
	07/03/09	1			1449	✓				

*Flew below existing powerline

White-tailed eagle

48. Ornithological information obtained from SNH, the RSPB and local raptor group workers indicated that up to ten active white-tailed eagle territories lie within 6 km of the Proposed Development. Three of these territories were within an approximate 2 km radius of the Proposed Development.
49. During the surveys conducted in 2018, white-tailed eagles had active territories in section 1 in three locations, with two active nests identified within the 2 km buffer. Birds were also noted using a roost in a known territory (Confidential Figure 1). There were also a number of locations around these territories where perching birds were recorded during observations.
50. Further nests and territories were not located but are known to the RSPB.
51. The detailed surveys at the Kylerhea narrows in 2017 and 2018 found birds using perches on the shore and in the edge of the treeline north of Kylerhea, whilst foraging in the sea there (Figure 9). A nest location south of the narrows was occupied in both 2017 and 2018.

Flight Activity

52. There was a large amount of flight activity observed during the watches in 2017 (Figure 10).
53. Ninety-four flights of white-tailed eagle were recorded during the 443 hours of observation from FVPs 1, 2, 3, 4, 5 and 9 between March 2018 (February for FVP 4) and March 2019 (Figure 8, Table 15).
54. Of the twenty-two flights at FVP 1 nineteen had some duration at less than 50 m elevation a.g.l. and twelve of these were within 500 m of the proposed OHL route. Of the twenty-five flights at FVP 2, twenty-three had heights recorded, twenty one were at less than 50 m

a.g.l. and sixteen of these were within 500 m of the proposed OHL route. One flight was recorded at FVP 3, which was greater than 50 m a.g.l. but briefly passed within 500 m of the proposed OHL. Of the thirty-two flights at FVP 4 twenty-seven had some duration at less than 50 m elevation a.g.l. and five of these were within 500 m of the proposed OHL route which includes the existing crossing of the narrows. Of the three flights at FVP 5 two had some duration at less than 50 m elevation a.g.l. and both were within 500 m of the proposed OHL route. Of the three flights at FVP 9 two were at less than 50 m a.g.l. however no information has been provided as to the route of the proposed OHL in this vicinity yet (Figure 8, Table 15).

Table 15. Flight activity of white-tailed eagles observed during FVP watches in 2018-2019.										
Records shown in red were observed outside the 500 m buffer.										
FVP	Date	No. Birds	Age	Sex	Time first seen	Height band				
						<10m	10-30m	30-50m	50-150m	>150m
1	17/04/18	1	AD	M	1621	✓	✓			
		1	AD	F	1621	✓				
		1	AD	F	1709	✓	✓			
		1	AD	M	1709	✓				
	24/06/18	1	AD	M	1722	✓	✓	✓	✓	
		1	AD	M	1748	✓	✓	✓		
	20/07/18	1	AD	F	0954				✓	
		1	IMM	F	1055			✓	✓	
	29/08/18	1	SUB	F	1026					✓
	20/09/18	1	IMM	F	1239					✓
		1	IMM	F	1246			✓	✓	
		1	IMM	F	1255		✓			
		1	IMM	F	1335	✓	✓	✓	✓	✓
	05/10/18	1	AD	F	1046	✓	✓			
		1	AD	M	1526		✓		✓	✓
	13/11/18	1	AD	M	1252	✓	✓			
		1	AD	M	1256	✓				
		1	AD	M	1421	✓	✓			
	11/12/18	1	AD	F	1238		✓	✓	✓	
		1	AD	F	1244		✓	✓		
1		AD	F	1519	✓					
1		AD	F	1524	✓					
2	28/03/18	1			1146			✓	✓	
		1			1147			✓	✓	
	11/10/18	1	IMM	M	1027				✓	✓
	05/12/18	1	AD		1236				✓	✓
	10/12/18	1	IMM	F	0924	✓				
		1	IMM	F	0942	✓				
		1	IMM	M	0942	✓				
1		IMM	M	0944	✓					

Table 15. Flight activity of white-tailed eagles observed during FVP watches in 2018-2019.

Records shown in red were observed outside the 500 m buffer.

FVP	Date	No. Birds	Age	Sex	Time first seen	Height band				
						<10m	10-30m	30-50m	50-150m	>150m
2	10/12/18	1	IMM	M	0944	✓				
		1	IMM	F	0957	✓				
		1	IMM	F	0957	✓				
		1	IMM	M	0959	✓				
		1	IMM	F	1003	✓				
		1	IMM	F	1008	✓	✓			
		1	IMM	F	1009	✓				
		1	IMM	M	1015		✓			
	23/01/19	1	AD	M	1100			✓	✓	
	19/02/18	1	AD	F	1453	✓				
		1	AD	M	1457	✓				
		1	IMM		1457	✓				
		1	IMM		1458	✓	✓			
		1	AD	F	1515	✓				
		1	AD	M	1516	✓				
1		AD	F	1547						
1		AD	M	1547						
3	24/06/18	1	AD		0933			✓	✓	
4	08/02/18	1	AD	F	1003			✓	✓	
	13/05/18	1	AD	M	1643		✓	✓		
		1	AD	M	1728		✓	✓		
	03/06/18	1			1735	✓	✓			
		1			1740	✓	✓			
		1			1745	✓	✓			
		1			1820	✓	✓	✓		
		1			1833	✓				
		1			1848	✓				
		1			1853	✓				
		1			1858	✓				
	07/06/18	1	AD		0920	✓				
		1	AD		0920	✓				
		1	AD		0922	✓				
		1	IMM		0922	✓	✓			
		1	AD		0936	✓				
		1	AD		1003	✓	✓	✓		
		1	AD		1025	✓				
		1	AD		1047	✓				
		1	AD		1132	✓	✓	✓		
24/06/18	1	SUB		1707					✓	
	1	SUB		1721				✓		
27/06/18	1	AD		1353		✓			✓	
	1	AD		1542			✓	✓	✓	
16/07/18	1	AD		1835	✓					
	1	AD		1842	✓	✓	✓	✓		

Table 15. Flight activity of white-tailed eagles observed during FVP watches in 2018-2019.										
Records shown in red were observed outside the 500 m buffer.										
FVP	Date	No. Birds	Age	Sex	Time first seen	Height band				
						<10m	10-30m	30-50m	50-150m	>150m
4	20/07/18	1			1134					✓
	29/10/18	1	SUB		1424	✓	✓	✓		
	19/11/18	1	AD		1356				✓	✓
		1	AD		1402				✓	✓
		1	AD		1440	✓	✓	✓	✓	
	22/01/19	2	2AD		1109		✓	✓		
5	27/04/18	1	AD		1144		✓	✓	✓	✓
		1	AD		1338				✓	
	19/05/19	1	AD		0943		✓	✓	✓	
9	21/04/18	1			1613				✓	✓
		1			1643				✓	✓
	04/06/18	1	IMM		1710			✓		
		1	IMM		1714			✓	✓	
		1	IMM		1742		✓	✓		
		1	IMM		1744				✓	
		1	IMM		1747				✓	
		1	IMM		1752					✓
	26/07/18	3	IMM		0947	✓	✓	✓	✓	
		1	IMM		0953		✓	✓	✓	
14/09/18	1			1709					✓	

Other scarce breeding birds

Hen Harrier

55. One territorial hen harrier pair was found nesting within the 2 km survey buffer in 2018 (Confidential Figure 2).

Red-throated diver

56. One pair was confirmed as breeding within the 2 km survey buffer in 2018 (Confidential Figure 2).

Breeding waders

57. Curlew, golden plover, greenshank and snipe were found breeding in very small numbers within the 500 m survey buffer used for moorland breeding wader surveys (Figure 11a & 11b, Table 16).

Table 16. Moorland breeding wader territories in 2018.		
Species	Confirmed Territories	Probable Territories
Curlew	5	
Golden plover	2	
Greenshank	2	
Snipe	13	2

Coastal species

58. Small numbers of common waterfowl and wader species were recorded during the coastal bird surveys, they were feeding or loafing on the open water or in the exposed mud. These included bar-tailed godwit, ringed plover, goosander, red-breasted merganser curlew, greenshank, oystercatcher, common sandpiper, grey heron, redshank, great black-backed gull, herring gull, common gull, mallard, turnstone and goldeneye.

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2021

Fort Augustus to Skye Overhead Line Project
Report on Ornithological Surveys
April 2016 to March 2019

FIGURES

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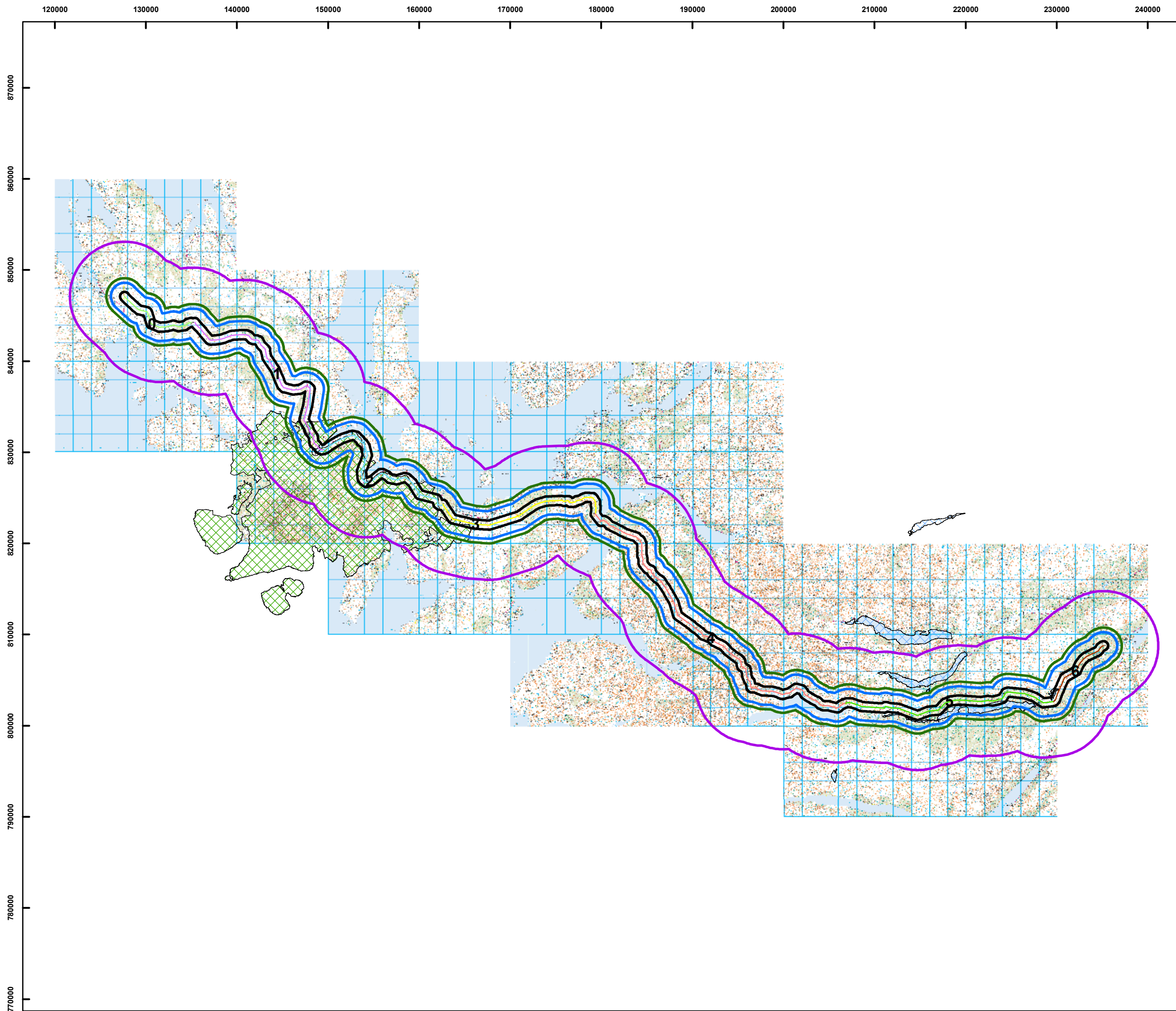


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June 2021



Key

Line Section

- 0
- 1
- 2
- 3
- 4
- 5
- 6

- 500m buffer
- 1.5km buffer
- 2km buffer
- 6km buffer
- Cuillins SPA
- West Inverness-shire Lochs SPA

Date produced: 13/12/2019
Source: NRP LTD

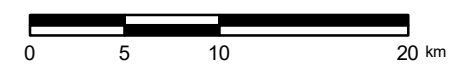


Figure no. 1

Survey buffers

LT91 Fort Augustus to Skye OHL Project

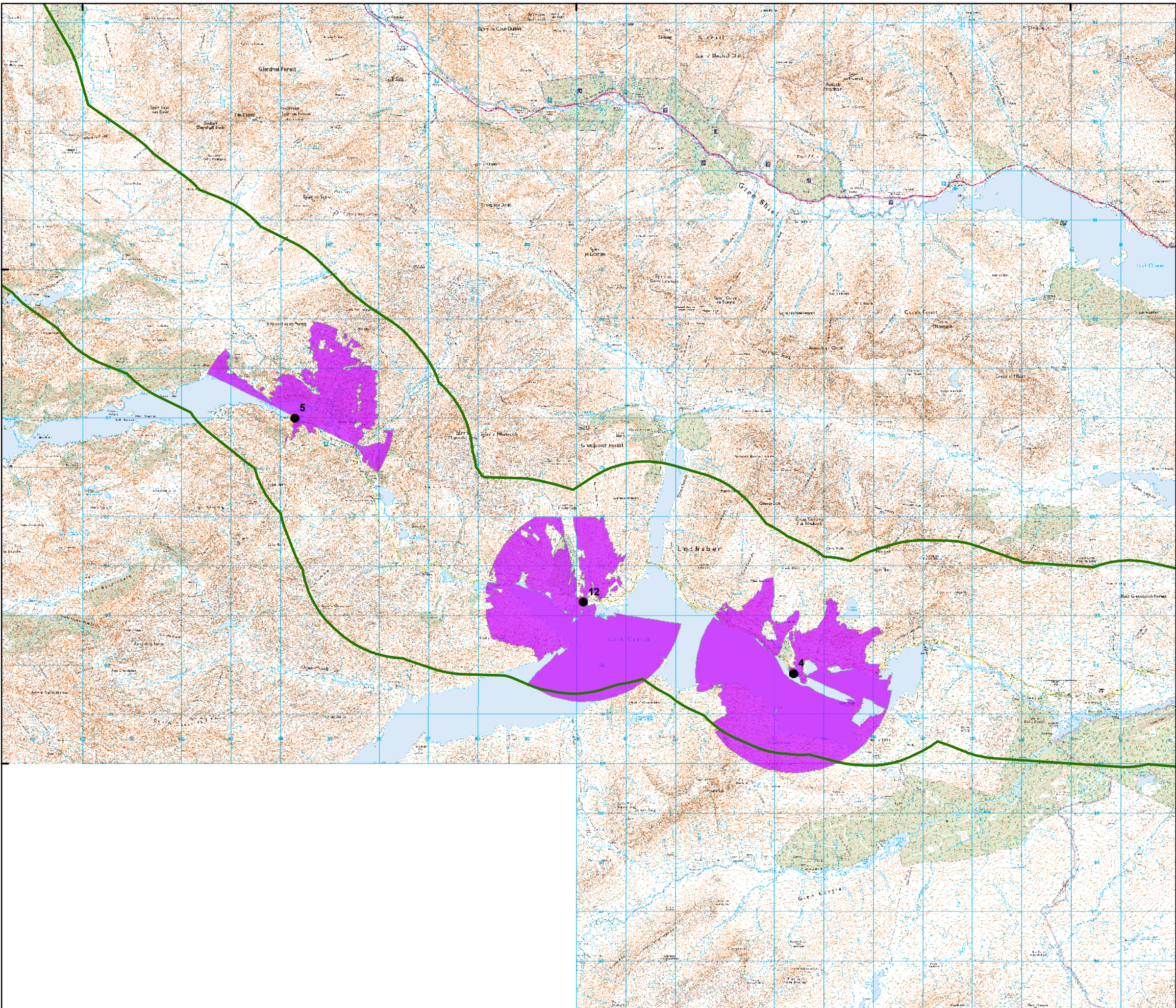
190000

200000




210000

810000

800000



Key

-  2km buffer
-  2016 Vantage Point
-  Viewshed

Date produced: 13/12/2019
Source: NRP LTD

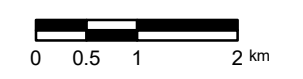
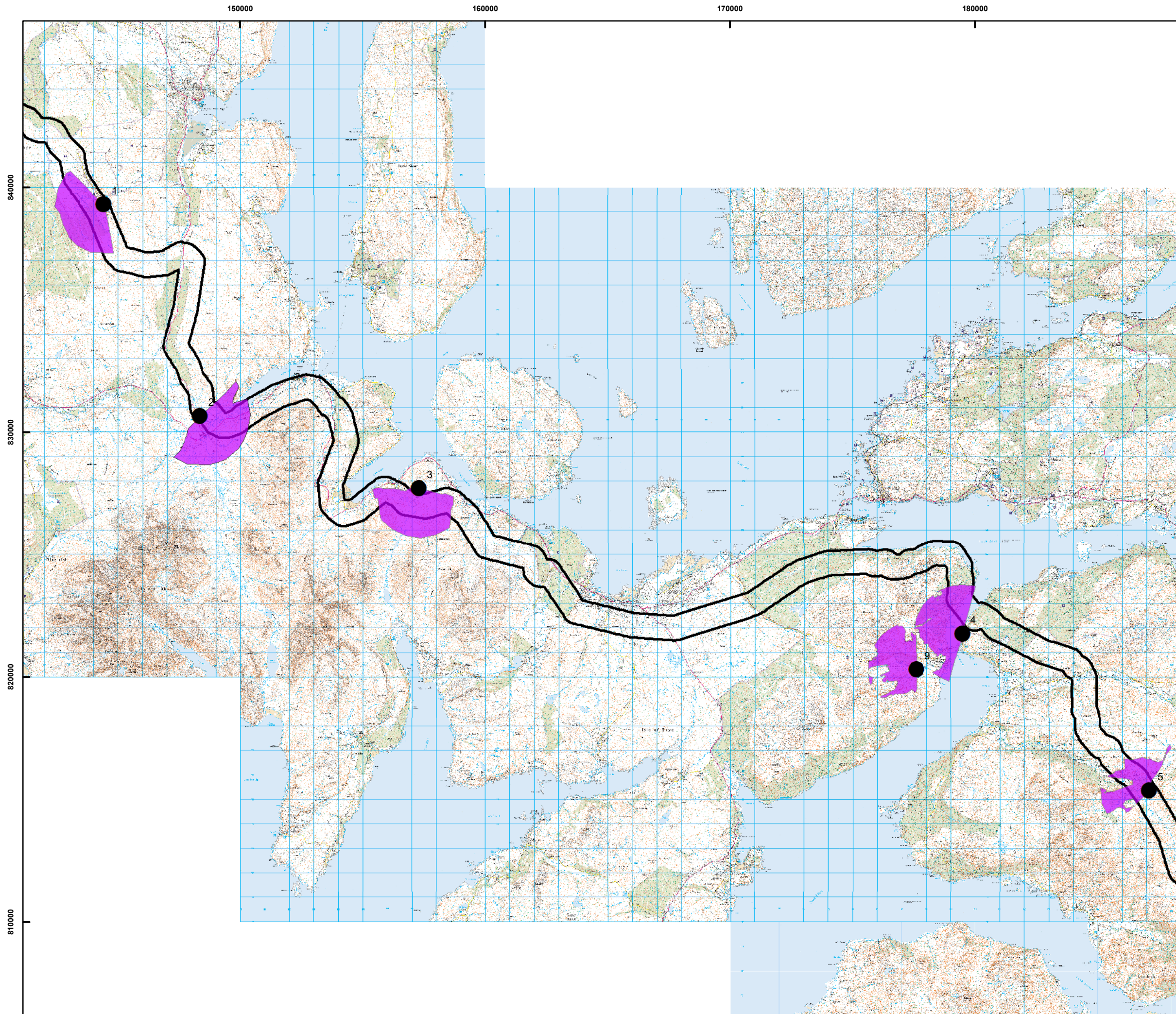


Figure no. 2

Survey Area 1

LT91 Fort Augustus to Skye OHL Project



Key

- vantage point
- visibility
- 500m buffer

Date produced: 13/12/2019
Source: NRP LTD

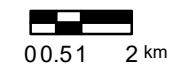
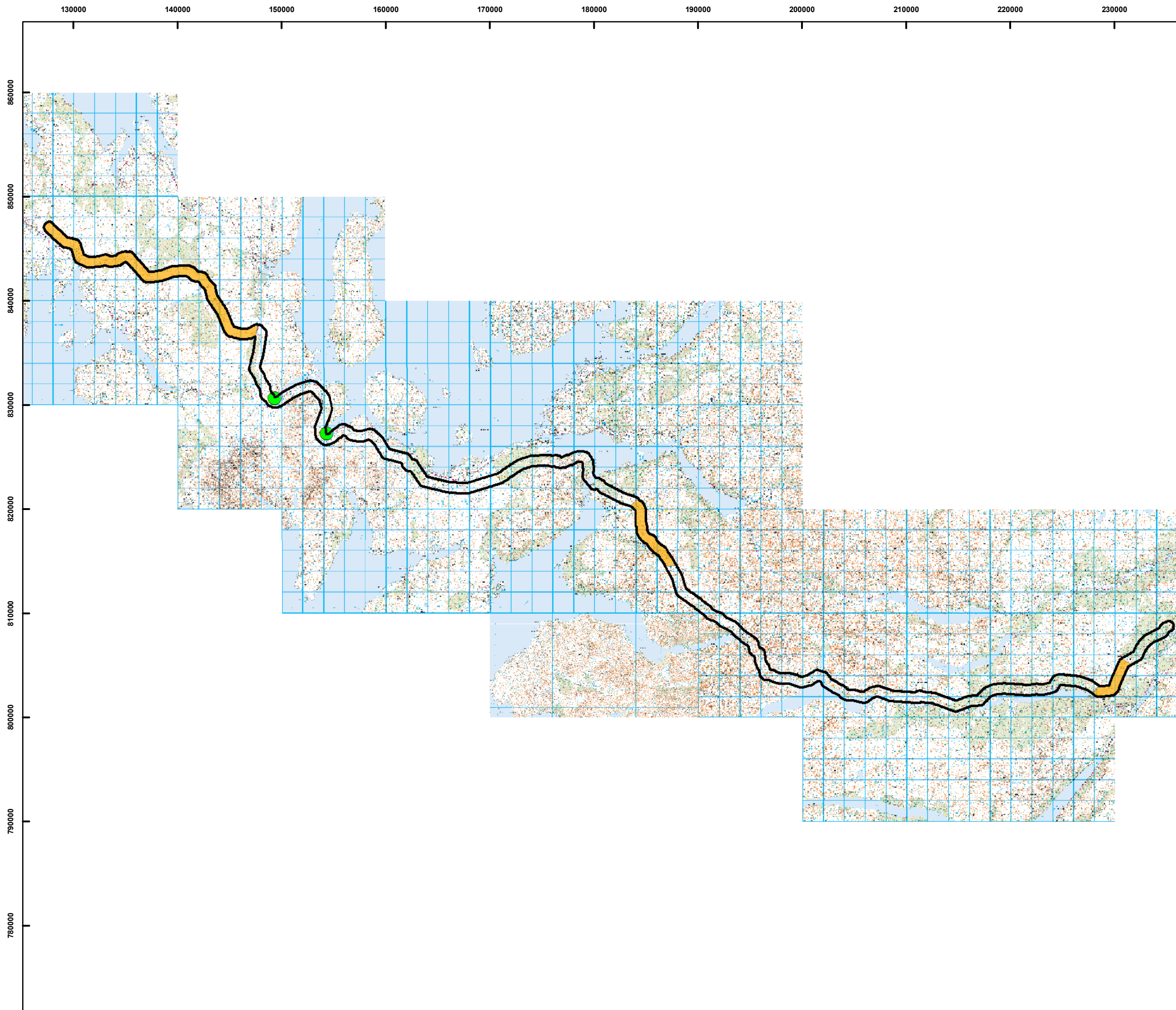





Figure no. 3

Survey Area 2

LT91 Fort Augustus to Skye OHL Project



Key

-  500m buffer
-  MBS survey area
-  Coastal bird survey area

Date produced: 13/12/2019
Source: NRP LTD

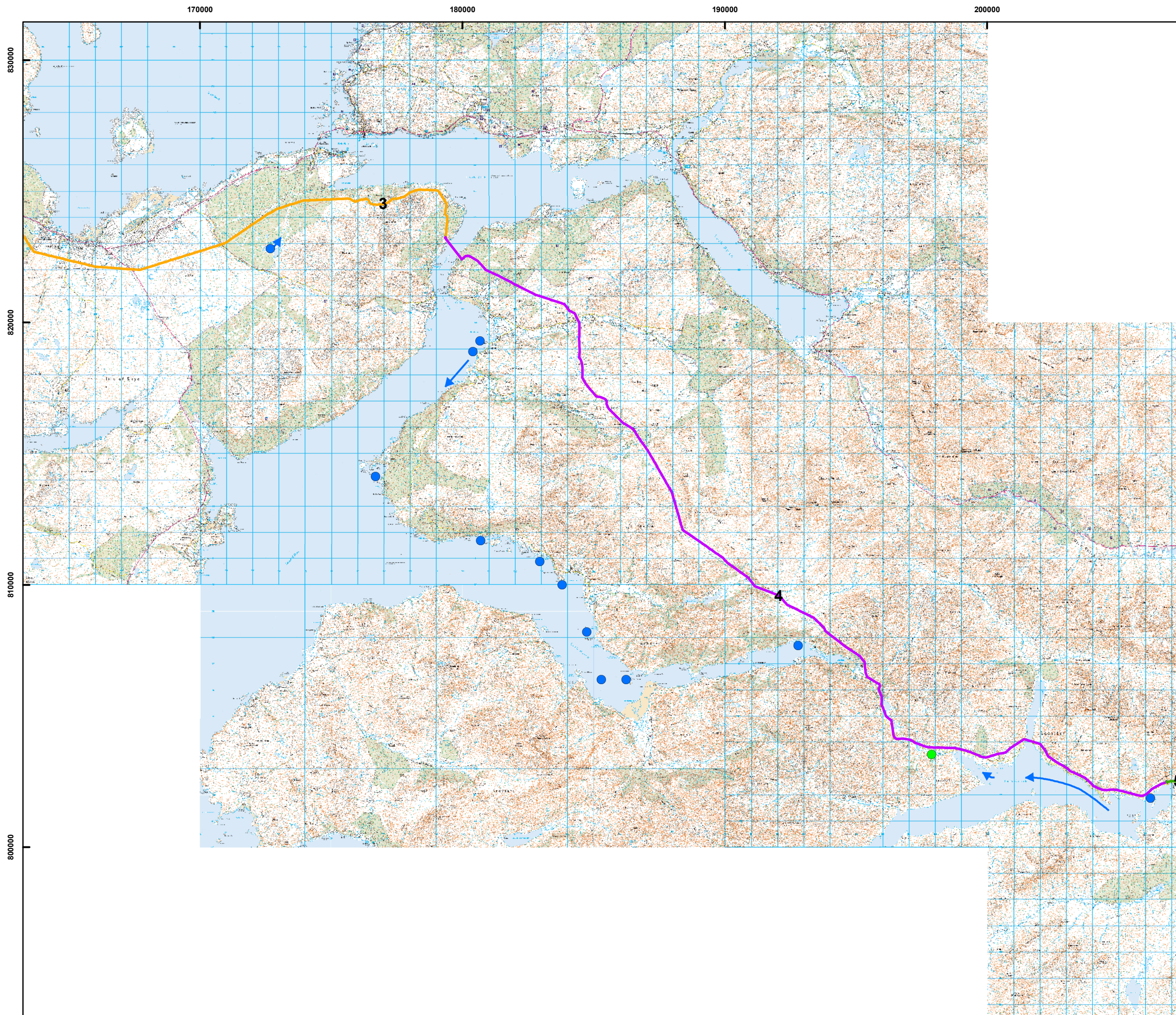


 0.5 2 km

Figure no. 4

MBS and Coastal bird survey areas

LT91 Fort Augustus to Skye OHL Project



Key

Line Section

- Section 3
- Section 4
- Section 5

Observation

- Black-throated diver
- Common scoter

Flight line

- ➔ Black-throated diver

Date produced: 13/12/2019
Source: NRP LTD

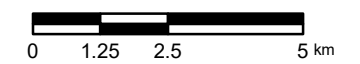
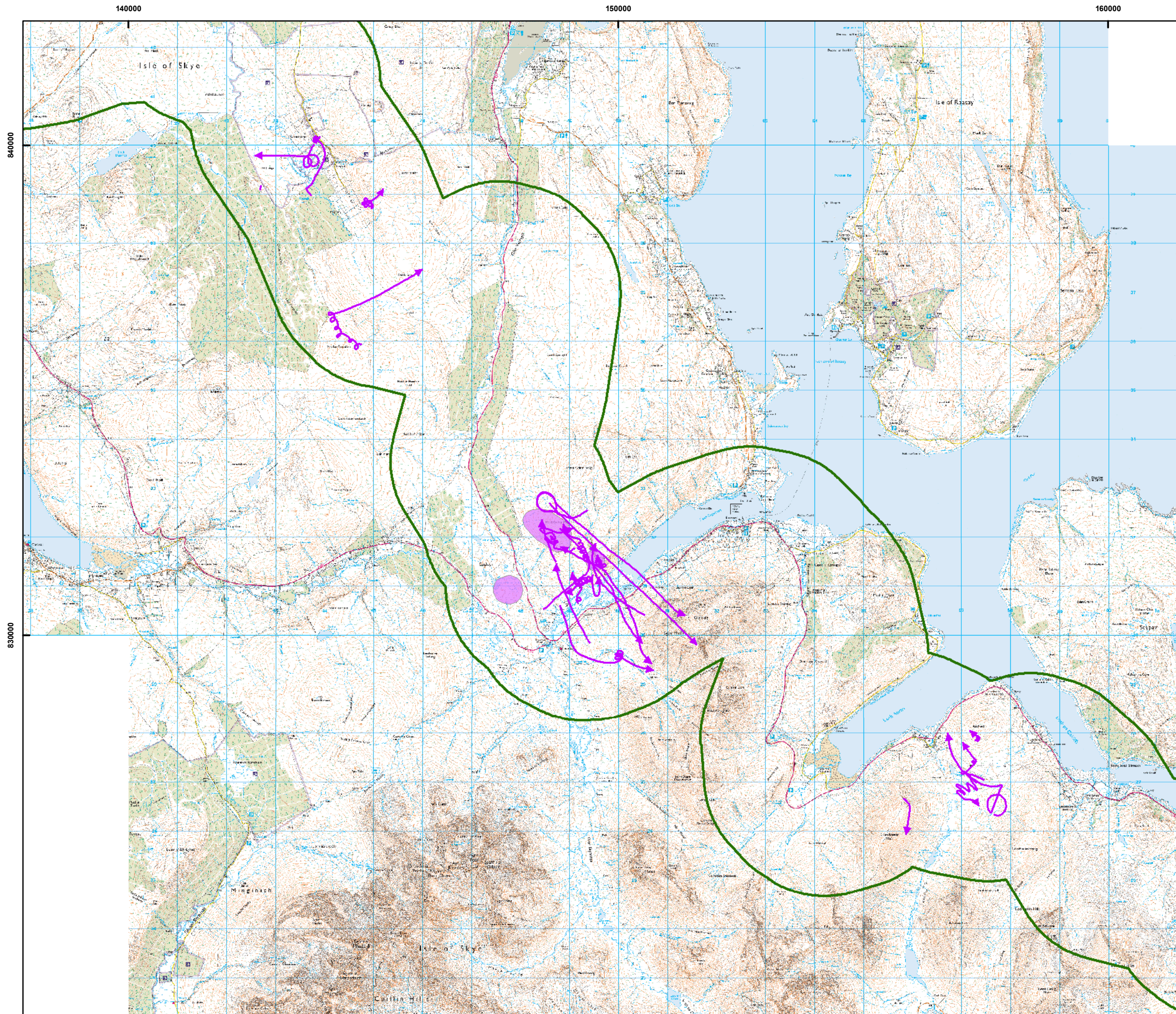





Figure no. 5

Diver and Scoter sightings

LT91 Fort Augustus to Skye OHL Project



Key

-  2km buffer
-  Flight line
-  Flight area

Date produced: 13/12/2019
Source: NRP LTD



Figure no. 6
**Golden eagle flight activity
at FVP 1 2 and 3**

LT91 Fort Augustus to Skye OHL Project