

TECHNICAL APPENDIX 9.1: ORNITHOLOGY TECHNICAL REPORT

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1. INTRODUCTION

1.1 Terms of Reference

1.1.1 This Technical Report details the Ornithological survey work undertaken along the route of the proposed 400 kV overhead line (OHL) between the proposed Coire Glas Switching Station and Fort Augustus Substation (via the proposed Loch Lundie Substation) and ancillary works (referred to as the Proposed Development) appropriate buffers between October 2021 and September 2022. This report also details the findings of these surveys.

1.1.2 The aim of the surveys was to provide sufficient information to enable an assessment on the potential impacts of the Proposed Development on ornithology to be made.

1.1.3 The objectives of the ornithology surveys were to:

- Identify and quantify the level of flight activity of selected bird species (with a focus on birds of high conservation importance);
- Record the presence and abundance of selected birds of high conservation importance; and
- Map the distribution of rare or scarce breeding birds listed on Annex 1 of the EU Birds Directive (2009/147/EEC) on the Conservation of Wild Birds (the “Birds Directive”) and on Schedule 1 on the Wildlife and Countryside Act 1981 (as amended) (WCA).

1.2 Nature Conservation Legislation and Policy

General Nature Conservation Legislation and Policy

1.2.1 European and national legislation and policy relevant to the Proposed Development in terms of nature conservation are listed below. Cognisance has been taken of these instruments in the preparation of this report.

- The Conservation of Natural Habitats and of Wild Flora and Fauna EC Directive (92/43);
- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Conservation of Wild Birds and their Habitats EC Directive (2009/147/EC);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Nature Conservation (Scotland) Act 2004;
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE);
- The British Standard for Biodiversity BS 42020:2013;
- Scottish Planning Policy (2014) sections 193 to 218;
- Scottish Biodiversity Strategy: Scotland’s Biodiversity – It’s In Our Hands (2004) and 2020 Challenge For Scotland’s Biodiversity (2013);
- UK Biodiversity Action Plan (UK BAP); and
- The Scottish Biodiversity List (SBL).

Legislation and Policy in Relation to Birds

1.2.2 Several of the bird species recorded during the surveys are protected under international and national legislation, and several instruments of national legislation protect all areas of national natural heritage. The relevant legislation is described below:

- 1.2.3 The Wild Birds Directive, or European Directive 2009/147/EC (the codified version of EEC Directive 79/409/EEC as amended), and the Habitats Directive (EEC Directive 92/43/EEC) , state that all wild bird populations within the UK are protected under European legislation. Through these Directives, which highlight key species within specifically detailed annexes, came the establishment of a Europe-wide network of designated conservation areas known as Natura 2000 (comprised of Special Protection Areas (SPA) from the Birds Directive and Special Areas of Conservation (SAC) from the Habitats Directive).
- 1.2.4 The Wildlife and Countryside Act 1981 (as amended) is the primary legislation that protects wild birds within the UK. Through a series of Schedules, this Act makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy their nests or eggs. It is also an offence to intentionally or recklessly disturb the nest building, nests that contain eggs or young, or to disturb or take the dependent young of birds on the Schedule 1 list, which are offered the highest level of protection.
- 1.2.5 The Nature Conservation (Scotland) Act 2004 imposes a wide-ranging duty to conserve biodiversity and protect the nation's natural heritage. Implementation is linked to a national biodiversity strategy that is endorsed by the Scottish Government. Part of this strategy is the designation of Sites of Special Scientific Interest (SSSI) - those areas of land and water considered to best represent the diversity of natural heritage across Scotland. It is an offence for any person to intentionally or recklessly damage the protected natural features of an SSSI.
- 1.2.6 On a local level or for particular species, the Scottish Biodiversity Strategy (Scottish Government 2004 and 2013) has the objective of halting the loss of biodiversity and continuing to reverse previous losses through targeted action for species and habitats through improved knowledge, planning, design, practice and management.
- 1.2.7 Scottish Planning Policy (Scottish Government 2014) states that areas should be safeguarded and the character of the habitat enhanced, species diversity, rarity and extent must be established, and the species requirements must be fully factored into the planning and design of the development.

2. METHODS

2.1 Desk Study

2.1.1 A comprehensive desk study of published data was undertaken to inform the bird surveys in 2021 and 2022. The results of the desk study were used to identify if the proposed development could potentially impact upon any European designated site, notable or protected species; to inform the field survey; and to provide information to guide actions and priorities for any ecological mitigation and enhancement.

2.1.2 The 2021 and 2022 desk studies involved a search of the appropriate sources:

- NatureScot Sitelink website¹ for statutory designated sites within a 10 km radius (e.g. Special Protection Areas (SPA), Special Areas of Conservation (SAC), Sites Special of Scientific Interest (SSSI), Ramsar Sites, and non-statutory designated sites (e.g. Local Nature Reserves and Sites of Importance for Nature Conservation));
- Royal Society for the Protection of Birds (RSPB)² and British Trust for Ornithology³ (BTO) websites.
- RSPB data request;
- Birds Of Scotland⁴;
- UK Biodiversity Action Plan (UKBAP)⁵;
- Scottish Biodiversity List (SBL)⁶; and
- A review of impact assessments for nearby sites, such as the Skye Reinforcement Project and the Coire Glas Pump Storage Scheme Project.

2.2 Bird Conservation Criteria

2.2.1 The criteria used to define the current conservation status of UK bird populations are BAPs at national and local levels and the Red, Amber and Green lists of Birds of Conservation Concern (BoCC) .

2.2.2 Both the UKBAP and the network of Local BAPs were initialised in response to the 1992 Convention of Biological Diversity signed in Rio de Janeiro (also referred to as the Rio Convention). Implemented through the Biodiversity Steering Group, the BAPs identified both the habitat types and species that were of conservation concern. Plans were then drawn up to aid protection and conservation of these priority habitats and species.

2.2.3 Taking account of the Scottish Biodiversity Strategy, the conservation status of the species recorded at the Proposed Development were evaluated by their inclusion on the UKBAP, the Scottish Biodiversity List and by using the RSPB / BTO Conservation Status Criteria from the lists of BoCC, which is a simple 'traffic light' method to gauge conservation importance for those species which are not afforded protection under international or national legislation. The criteria used to evaluate this conservation concern are listed below:

Red Listed Criteria

- Globally threatened;
- Historical population decline in UK during 1800 – 1995;
- Rapid ($\geq 50\%$) decline in UK breeding population over last 25 years; and

¹ NatureScot SiteLink website. Available at <https://sitelink.nature.scot/map> (Accessed 2021 & 2022)

² RSPB (2012). <http://www.rspb.org.uk/wildlife/birdguide/name>. (Accessed 2021 & 2022)

³ BTO (2012). <http://www.bto.org/about-birds/birdfacts/find-a-species>. (Accessed 2021 & 2022)

⁴ Forrester, R.W., Andrews I.J., McInerney C.J., Murray R.D., McGowan R.Y., Zonfrillo B., Betts M.W., Jardine D.W. & Grundy D.S. (eds). 2012. *The Birds of Scotland. Digital Version*. The Scottish Ornithologists Club, Aberlady.

⁵ UK Biodiversity Action Plan. Available at: <https://jncc.gov.uk/our-work/uk-bap/> (Accessed 2021 & 2022)

⁶ Scottish Biodiversity List. Available at: <https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/scottish-biodiversity-list> (Accessed 2021 & 2022)

- Rapid ($\geq 50\%$) contraction of UK breeding range over last 25 years.

Amber Listed Criteria

- Moderate (25-49%) decline in UK breeding population over last 25 years;
- Moderate (25-49%) contraction of UK breeding range over last 25 years;
- Moderate (25-49%) decline in UK non-breeding population over last 25 years;
- European Red List of Birds Species (ERLOB) that have been categorised as Critically Endangered, Endangered or Vulnerable;
- Five year mean of 1-300 breeding pairs in UK;
- $\geq 50\%$ of UK breeding population in 10 or fewer sites, but not rare breeders;
- $\geq 50\%$ of UK non-breeding population in 10 or fewer sites;
- $\geq 20\%$ of European breeding population in UK; and
- $\geq 20\%$ of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding population in UK.

Green Listed Criteria

2.2.4 No identified threat to the population's status.

2.3 Field Surveys

2.3.1 In order to fully assess the ornithological effects on site, a suite of surveys were undertaken between October 2021 and September 2022. These surveys are detailed below.

Vantage Point Surveys

2.3.2 Vantage Point (VP) watches are designed to quantify the level of flight activity and its distribution over the survey area. Its primary purpose is to provide input data for Collision Risk Assessment (CRA) which predicts mortalities from collision with turbines or other man-made infrastructure. Data can also be used to provide an overview of bird usage of the site, which may help to inform an overview of potential disturbance and displacement.

2.3.3 VP surveys did not take place simultaneously with any other fieldwork on the site that may cause disturbance and invalidate the VP survey results.

2.3.4 VP watches were used to record flight activity and the use of the site, during the breeding and non-breeding season, for pre-selected target species. NatureScot guidance⁷ was followed, which recommends that a minimum of 72 hours per VP is required per year divided between seasons (36 hours breeding and 36 hours non-breeding), as a standard for species where VP survey is required.

2.3.5 There was a break of at least 30 minutes between VP watches to minimise observer fatigue. Watches can be suspended and then resumed to take account of changes in visibility, e.g. fluctuations in the cloud base, passing rain shower or for the observer to rest.

2.3.6 When selecting VP locations, the aim was to cover all of the flight activity survey area such that no point is greater than 2 km from a VP. It is very important that VPs are chosen to achieve maximum visibility with the minimum number of points. As detection of flight activity will decrease with distance, VPs were located as close to the survey area as possible. A total of five VPs were used to sufficiently cover the survey area.

⁷ <https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-%20Recommended%20bird%20survey%20methods%20to%20inform%20impact%20assessment%20of%20onshore%20windfarms.pdf>

2.3.7 Table 2-1 below details the VP locations used and their orientation. **Figure 9.1** in Appendix B shows the VP locations.

Table 2-1: Vantage Point Locations and Orientation

Vantage Point Number	Grid Reference	Orientation
1	NH 26217 99182	North-east
2	NH 28964 02886	East
3	NH 31520 04090	West
4	NH 37180 04408	North
5	NH 36951 07612	South-west

2.3.8 From these VPs, the visible area within a 180° arc was scanned for target species. For overhead lines (OHL), flights of target species were recorded within two height bands: E.g. below 60 m (below the height of the OHL towers); and above 60 m (above the height of the OHL towers). There is a certain amount of error on the part of the fieldworker in estimating heights of birds from a distance, and birds vary their flight height all the time, but it is usually easy to place bird heights within two bands: high flights were usually well above the cut-off height, and any borderline records were placed within the lower height band.

2.3.9 NatureScot recommends that VPs should be tailored to the ecology of the target species involved. This should provide a spread over the full daylight period available (from official local sunrise to sunset times) which will vary depending on the time of year. VPs were spread across all calendar months when the species is present or likely to be so. The watches were stratified according to the ecology of the target species present to give a representative sample of site use.

2.3.10 Watches were taken under conditions of good ground visibility (>2 km) and can be undertaken on showery days providing showers are not too frequent or prolonged. Surveys were undertaken in a variety of cloud base levels (but never lower than 250m) and a range of wind conditions which is important in the case of soaring birds when wind direction and strength is likely to have an effect on ranging behaviour.

2.3.11 Appendix A provides the dates, times and weather conditions of the VP watches during the period of October 2021 to September 2022.

Moorland Breeding Walkover Surveys

2.3.12 This consisted of a Brown and Shepherd breeding bird survey, which is the standard survey technique for moorland/upland breeding birds. It is based on a constant search method involving spending 20 - 25 minutes in each 500 m x 500 m quadrat, both within the survey area and a pre-determined 500 m buffer zone. This equates to spending 100 minutes in every square kilometre. Each quadrat was walked to ensure that all parts are approached to within 100 m. At regular intervals, the surveyor scanned the area for species and also listened out for calls and songs. These surveys were undertaken four times during the period April to July 2022. This method is specifically designed to survey upland wader species (e.g. Golden Plover (*Pluvialis apricaria*) and Dunlin (*Calidris alpina schinzii*)).

2.3.13 Table 2-2 below details the dates, times and weather conditions of the Moorland Breeding Bird Surveys undertaken. **Figure 9.1** in Appendix B shows the Moorland Breeding Walkover Survey area.

Table 2-2: Survey Dates and Weather Conditions for Moorland Breeding Bird Survey Walkovers

Date	Start Time	End Time	Observer	Wind Speed*	Wind Direction**	Cloud Cover***	Precipitation****
29/04/2022	10:00	16:00	MS	3	S	8	0
12/05/2022	07:00 15:00	10:45 17:00	MS	4	SSW	8	1
10/06/2022	09:30	15:30	MS	4	S	8	0-1
28/06/2022	08:00	14:10	MS	2	E	6	0

* Wind Speed is based on the Beaufort Scale, **Wind Direction based on a 16 point compass direction; *** Cloud Cover is based on oktas; ****Precipitation Scale is 0=none, 1=light showers, 2=persistent rain/heavy showers, 3=heavy rain; Observer, MS=Matt Sullivan

Moorland Winter Walkover Surveys

2.3.14 The upland winter walkover survey closely follows the adapted B&S moorland breeding bird survey method, with surveys undertaken three times during the period October 2021 to March 2022.

Black Grouse Lek Surveys

2.3.15 Black Grouse lek surveys were undertaken in areas of suitable habitat within 1.5 km of the Proposed Development. Surveys followed methods as set out in Gilbert et al (1998)⁸ commencing an hour before dawn and continuing until it was considered no additional birds are likely to access the lek and no unnecessary disturbance would be caused to the birds by departing the survey area.

2.3.16 A suitable viewpoint was used to watch and listen for any movement of Black Grouse commuting from their roosting locations to the lek site. The aim was to establish a pattern of behaviour for the birds, or to ascertain from which direction the birds access the lek site. Each observation and vocalisation of Black Grouse was recorded, with the terms rasping and bubbling used to describe the two main diagnostic vocalisations of the male birds during their display.

2.3.17 Surveys were undertaken between April and Mid-May 2022, when lekking was at its peak. The survey dates these were undertaken are as follows:

- 6th April 2022;
- 11th April 2022;
- 21st April 2022; and
- 4th May 2022.

Waterbody Searches

2.3.18 Observations of waterbodies within 750 m of the Proposed Development were made for Black-throated Diver (*Gavia arctica*) and Common Scoter (*Melanitta nigra*), both qualifying species of the West Inverness-shire Lochs Special Protection Area (SPA) to ascertain presence and breeding. Lochs within 750 m included Loch Lundie and the east side of Loch Garry.

⁸ Gilbert, G., Gibbons, D. W. & Evans, J. (1998) Bird Monitoring Methods. RSPB, Sandy

Four visits were undertaken between April and July 2022. The survey days were as follows:

- 21st April 2022;
- 4th May 2022;
- 27th May 2022; and
- 6th July 2022.

Raptor Nest Searches

Searches for scarce breeding raptor species (Golden Eagle, Hen Harrier, White-tailed Eagle, Osprey, Red Kite and Peregrine) were undertaken following the methods set out in Hardey et al (2013)⁹. Searches were made up to 2 km from the Proposed Development. Specific surveys were undertaken on the following dates:

- 16th May 2022;
- 24th May 2022;
- 1st June 2022;
- 17th June 2022; and
- 11th July 2022.

⁹ Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. & Thompson, D. (2013). Raptors, a field guide to survey and monitoring. The Stationary Office, Edinburgh.

3. RESULTS

3.1 Field Surveys

Vantage Point Watches

- 3.1.1 A total of 18 species were recorded from the Vantage Point Surveys. These species (or species groups) are detailed below:
- 3.1.2 Golden Eagle (*Aquila chrysaetos*), – Over the course of 360 hours of Vantage Point Surveys (October 2021 through to September 2022), only six flightlines were recorded within the Proposed Development Survey Area, totalling 1248 seconds of flight time. This equates to 0.1% of watch time. An adult was recorded flying high west over VP4 on 6th December 2021, an adult flying high west over the Fort Augustus substation from VP5 and an adult and a juvenile were recorded from VP2, to the south of the Proposed Development on 15th April 2022. Of the 1248 seconds of flight time observed, only 30 seconds were below 60 m, considered to be within the risk window for collision. None of the flights below 60m were within the Proposed Development.
- 3.1.3 Hen Harrier (*Circus cyaneus*) – Over the course of 360 hours of Vantage Point Surveys (October 2021 through to September 2022), only one flightline was recorded within the Proposed Development Survey Area, totalling 37 seconds. This equates to 0.003% of watch time. The single record was of a ringtail to the west of Loch Lundie on 14th January 2022, approximately 800 m from the Proposed Development.
- 3.1.4 Red Kite (*Milvus milvus*) – Over the course of 360 hours of Vantage Point Surveys (October 2021 through to September 2022), only one flightline was recorded within the Proposed Development Survey Area, totalling 50 seconds. This equates to 0.004% of watch time. The single record was a bird recorded from VP5 to the east of the Caledonian Canal on 17th March 2022, approximately 1 km from the Proposed Development.
- 3.1.5 Osprey (*Pandion haliaetus*) - Over the course of 360 hours of Vantage Point Surveys (October 2021 through to September 2022), only two flightlines were recorded within the Proposed Development Survey Area, totalling 126 seconds. This equates to 0.01% of watch time. The flights comprised a single bird foraging along the west side of Loch Lundie in June 2022, approximately 800 m from the Proposed Development.
- 3.1.6 Peregrine (*Falco peregrinus*) - Over the course of 360 hours of Vantage Point Surveys (October 2021 through to September 2022), only one Peregrine flightline was recorded, totalling 50 seconds. This equates to 0.004% of watch time. The single record was of a bird recorded from VP5 to the east of the Caledonian Canal on 19th January 2022 approximately 1 km from the Proposed Development.
- 3.1.7 The flightlines of these raptor species can be found in **Figure 9.2** in Appendix B of this report.
- 3.1.8 Other Raptors species – Buzzard (*Buteo buteo*) was frequently recorded during the VP surveys, particularly over the forestry plantation around the Fort Augustus substation. Two Sparrowhawk (*Accipiter nisus*) flights and one Kestrel (*Falco tinninulus*) flight were also recorded, in the vicinity of the Caledonian Canal, to the east of the Proposed Development.
- 3.1.9 Wildfowl – Two Pink-footed Geese (*Anser brachyrhynchus*) flights were recorded, both on the same day (15th April 2022) migrating north. The flocks comprised of 80 and 580 respectively. Both flights were above 60 m. Two Canada Goose (*Branta canadensis*) flights were also recorded, a flock of eight birds along the Caledonian Canal, approximately 800 m from the Proposed Development, and a pair leaving Loch Lundie and heading north, approximately 400m from the Proposed Development. A single Greylag Goose (*Anser anser*) was seen circuiting Loch Lundie before landing. A flock of five Mute Swan (*Cynus olor*) were recorded flying north along the Caledonian Canal on 12th December 2021. Two Mallard (*Anas platyrhynchus*) flights were also recorded, both along the Caledonian Canal, approximately 800 m from the Proposed Development.

- 3.1.10 The flightlines of wildfowl species can be found in **Figure 9.3** in Appendix B of this report.

3.1.11 Gulls – Herring Gull (*Larus argentatus*) was regularly recorded commuting along the Caledonian Canal and the vicinity of the Fort Augustus substation during the winter months, with smaller number of Common Gull (*Larus canus*) and one Great Black-backed Gull (*Larus marinus*) also recorded along the canal.

3.1.12 The flightlines of these gull species can be found in **Figure 9.4** in Appendix B of this report.

3.1.13 Corvids – Both Raven (*Corvus corax*) and Hooded Crow (*Corvus cornix*) were both regularly recorded during the VP surveys, across the entirety of the route.

Moorland Breeding Walkover Surveys

Waders

3.1.14 A single Greenshank (*Tringa nebularia*) was recorded on 12th May 2022 along the shoreline at Loch Lundie in May 2022. However, it was not subsequently seen, and confirmation of breeding (successful or otherwise) could not be ascertained. The record was approximately 600 m from the Proposed Development.

3.1.15 One Snipe (*Gallinago gallinago*) territory was located on the east side of Loch Lundie, approximately 500 m from the Proposed Development.

3.1.16 Common Sandpiper (*Actitis hypoleucos*) was recorded on the watercourse leading from Loch Lundie on the southern side.

3.1.17 The locations of these species can be found in **Figure 9.5** in Appendix B of this report.

Passerines

3.1.18 Meadow Pipit (*Anthus pratensis*) was the most common passerine species recorded during the Moorland Breeding Bird Walkover Surveys. Skylark (*Alauda arvensis*) was also prevalent. A single pair of Stonechat (*Saxicola rubicola*) were present close to the existing access road leading to Loch Lundie. One pair of Wheatear (*Oenanthe Oenanthe*) and a single Cuckoo (*Cuculus canorus*) were also recorded.

3.1.19 Although not breeding within the Moorland Breeding Bird Survey area, Lesser Redpoll (*Acanthis cabaret*) and Crossbill (*Loxia curvirostra*) were regularly seen and heard calling overhead. Song Thrush (*Turdus philomelos*), Willow Warbler (*Phylloscopus trochilus*), and Chiffchaff (*Phylloscopus colybita*) were commonly heard singing from the forestry plantation blocks.

Moorland Winter Walkover Surveys

3.1.20 During winter, finch species such as Crossbill, Lesser Redpoll, Linnet (*Linaria cannabina*) and Siskin (*Spinus spinus*) were commonly encountered, along with flocks of migrating Fieldfare (*Turdus pilaris*) and Redwing (*Turdus iliacus*).

Black Grouse Lek Surveys

3.1.21 Within 1.5 km of the Proposed Development, one lek site, consisting of three males, was recorded on the west side of Loch Lundie, approximately 1 km from the Proposed Development.

Waterbody Searches

- 3.1.22 No Black-throated Divers were recorded during the Vantage Point Surveys. No divers were recorded during loch searches at Loch Lundie. Information received from the RSPB indicated the presence of a pair of Black-throated Diver on Loch Lundie on 24th May 2022. However, these birds were not present on the loch prior to and after this date, indicating that this was an early failed breeding pair, or non-breeding pair from elsewhere within the SPA complex. Divers were also present on Loch Lundie in 2021.
- 3.1.23 No Black-throated Diver were recorded on Loch Garry within 750 m of the Proposed Development.
- 3.1.24 No Common Scoter were recorded during the Vantage Point Surveys. No scoters were recorded during loch searches at Loch Lundie. Information received from the RSPB also confirmed the absence of scoters at Loch Lundie in 2022.
- 3.1.25 No Common Scoter were recorded on Loch Garry within 500 m of the Proposed Development.
- 3.1.26 A pair of Canada Goose was present on Loch Lundie throughout the summer of 2022. Mallard and Teal (*Anas crecca*) were also present.

Raptor Nest Searches

- 3.1.27 No Golden Eagle nest sites were recorded within 1 km of the Proposed Development. The nearest known nest site is located approximately 4 km away.
- 3.1.28 No Hen Harrier nest sites were recorded within 1 km of the Proposed Development.
- 3.1.29 No Red Kite nest sites were recorded within 1 km of the Proposed Development.
- 3.1.30 No Osprey nest sites were recorded within 1 km of the Proposed Development. The nearest known nest site is located approximately 3 km away.
- 3.1.31 No Peregrine nest sites were recorded within 1 km of the Proposed Development.

3.2 Ornithological Summary

- 3.2.1 A total of fifty-five bird species recorded during the suite of surveys undertaken within the study area, plus ad-hoc sightings.
- 3.2.2 Seven of the species recorded are either Annex 1 of the Birds Directive or within Schedule 1 Part 1 of the Wildlife and Countryside Act 1981, and thus are afforded maximum protection under either European or national legislation:
- Osprey and Peregrine are included in both Annex 1 and Schedule 1;
 - Common Crossbill and Greenshank are included on Schedule 1; and
 - Golden Eagle, Hen Harrier and Red Kite are included in both Annex 1 and Schedule 1 and are three of the four species found within the UK which are afforded further protection at all times of year through their inclusion on Schedule 1A and/ or Schedule A1.
- 3.2.3 Five of the species recorded are included as Priority Species on the UKBAP and therefore on the Scottish Biodiversity List:
- Hen Harrier;
 - Skylark;
 - Cuckoo
 - Herring Gull; and

- Song Thrush.

3.2.4 In addition to the above, eleven further species appear on the Scottish Biodiversity List:

- Golden Eagle,
- Red Kite;
- Osprey;
- Peregrine;
- Kestrel;
- Hooded Crow;
- Lesser Redpoll;
- Linnet;
- Siskin;
- Reed Bunting (*Emberiza schoeniclus*); and
- Redwing.

3.2.5 Ten of the species recorded have been placed on the Red List of the BoCC:

- Hen Harrier and Black Grouse have suffered historical declines;
- Kittiwake (*Rissa tridactyla*), Cuckoo, Skylark, Linnet, Lesser Redpoll, Fieldfare and Mistle Thrush (*Turdus viscivorus*) have all suffered severe breeding population declines over 25 years/ longer term; Fieldfare is also a rare breeding bird in the UK. And Kittiwake is an ERLOB (European red list status); and
- Herring Gull has suffered a severe breeding population decline over the last 25 years/longer term as well as a severe decline in non-breeding populations.

3.2.6 Twenty of the species recorded have been placed on the Amber List of the BoCC:

- Common Snipe is threatened in Europe and has also suffered moderate breeding range and non-breeding population declines;
- Osprey is recovering from historical declines and is a breeding rarity;
- Greenshank and Redwing are both breeding rarities;
- Common Sandpiper, Song Thrush, Dunnock (*Prunella vulgaris*), Kestrel, Sparrowhawk, Willow Warbler, Wheatear, Meadow Pipit and Reed Bunting have all suffered moderate breeding population declines (Song Thrush has recently been downgraded from Red listing, but Sparrowhawk has been upgraded from Green);
- Woodpigeon (*Columba palumbus*), and Wren (*Troglodytes troglodytes*) all have UK breeding populations of international importance (Wren has recently been upgraded from Green listing);
- Greylag Goose Eurasian Teal and Mallard have both suffered moderate non-breeding population declines, and the UK non-breeding population of all three species are also of international importance; and
- The UK non-breeding population of Common Gull and Pink-footed Goose is of international importance.

3.2.7 The remaining species are not considered to have any national conservation concern. Therefore, they are included on the BoCC Green List.

Appendices

Appendix A: Survey Dates and Weather Conditions for Vantage Point Surveys

Date	Time Start	Time Finish	VP	Wind Speed*	Wind Direction**	Observer	Precipitation***	Visibility#	Cloud Cover##	Cloud Base###
22/11/2021	13:40	16:40	3	3-4	NW	MS/IF	1	G	8	500
23/11/2021	09:15	12:15	3	1	NW	JP	0	G	7	400
23/11/2021	10:30	13:30	5	2-3	WSW	HA	1	E-G	8-7	300-400
24/11/2021	09:50	12:50	4	3-4	SW	IF	1	E	5	700
24/11/2021	10:15	13:15	2	2	S	JP	2	E	7-2	800
24/11/2021	11:05	14:15	1	3-4	SW	SW	1	G	8	700
24/11/2021	13:07	14:07	3	3-4	SW	IF	1	E	4	650
24/11/2021	11:05	14:05	5	34	SW	MS	0	E	6	800
25/11/2021	10:05	13:05	2	1	SW	MS/MZ	0	E	7-8	700
25/11/2021	10:35	13:40	1	2	SW	SW	1	E	7-8	700
25/11/2021	10:15	13:15	4	1	SW	IF	0	E	7	800
02/12/2021	12:20	15:20	5	1	SSW	MC	1	E	4	2000
03/12/2021	09:10	11:30	3	2	SW	MC	0	E	5-3	900
03/12/2021	12:05	15:05	4	2	SW	MC	0	E	6-4	800
06/12/2021	11:10	14:22	3	3	SW	SW	1	G	7	400
06/12/2021	11:15	14:15	4	3	SW	DP	1	G	7	500
06/12/2021	10:45	13:45	2	3	SW	JP	1	G	7	500
08/12/2021	09:40	12:40	2	3-4	SW	JP	1	G	8	600
08/12/2021	09:15	12:15	5	3	SW	MS	1	G	8	600
09/12/2021	10:00	13:00	1	3	SW	SW	1	G	7	800
13/12/2021	10:15	13:15	3	3	W	JP	0	E	3	1000
15/12/2021	10:00	13:00	5	3	W	JP	0	E	6	700
17/12/2021	11:30	14:30	2	1	SW	JP	0	E	7-3	1000
20/12/2021	08:40	11:40	5	0	N/A	MC	0	G	8-6	200
20/12/2021	11:30	14:30	1	1	E	JP	0	P	7	500
13/01/2022	11:30	14:30	5	2-3	SW	MS/SP	2	M	8	300

Date	Time Start	Time Finish	VP	Wind Speed*	Wind Direction**	Observer	Precipitation***	Visibility#	Cloud Cover##	Cloud Base###
14/01/2022	09:10	12:10	2	1	SW	MS	0	G	8	400
14/01/2022	09:30	12:30	4	3	WSW	SP	0	G	8	400
17/01/2022	09:50	12:50	1	3	WSW	SP	0	E	4	800-1000
19/01/2022	11:00	14:00	2	2	SW	JP	1	E	6	900
19/01/2022	11:20	14:20	3	3-4	SW	SW	1	E	6-8	700-900
19/01/2022	10:15	13:15	5	0-2	SW	HA	1	E-G	6-7	700
21/01/2022	10:50	14:20	1	3	SW	DP	0	E	7	800
22/01/2022	11:00	14:00	1	3	SW	JP	0	E	5	800
25/01/2022	10:20	13:20	2	2	SW	MS	0	G	8	800
25/01/2022	10:00	13:00	3	2-3	SW	JP	0-1	G-P	8	800
25/01/2022	10:25	13:25	4	3	SW	MC	0	E	7	500
02/02/2022	10:00	14:00	3	1	SW	JP	1	P	8	300
02/02/2022	10:45	13:45	2	2	NW	SW	1	G-P	8	600
02/02/2022	10:00	13:00	5	1	SW	MS	1	G-P	8	600
03/02/2022	09:20	12:20	5	5	SW	SW	1	G	8	800-600
03/02/2022	10:30	13:30	1	7	NW	JP	2	P	8	600
15/02/2022	09:50	12:50	2	4	SW	JP	0	E	6	800
15/02/2022	09:20	12:20	4	4	SW	SW	1-0	G-E	8-5	800
16/02/2022	09:10	10:10	3	0	N/A	SW	0-1	G-P	8	500
16/02/2022	10:35	13:35	4	0	N/A	SW	0-2	P-G	8	500-800
28/02/2022	09:40	12:40	1	3	SW	SW	0	E	8	800
01/03/2022	09:05	12:05	3	3-1	SW	SW	1-0	E	6-3	850
01/03/2022	12:30	14:00	4	2	SW	SW	0	E	4	1000
02/03/2022	11:55	14:55	5	3-4	SW	MS	0	E	2-3	1000
02/03/2022	12:15	15:15	2	3-5	SW-SE	SW	0	E	3-8	1000
11/03/2022	10:00	13:00	1	3	SW	JP	2-0	G	7	800

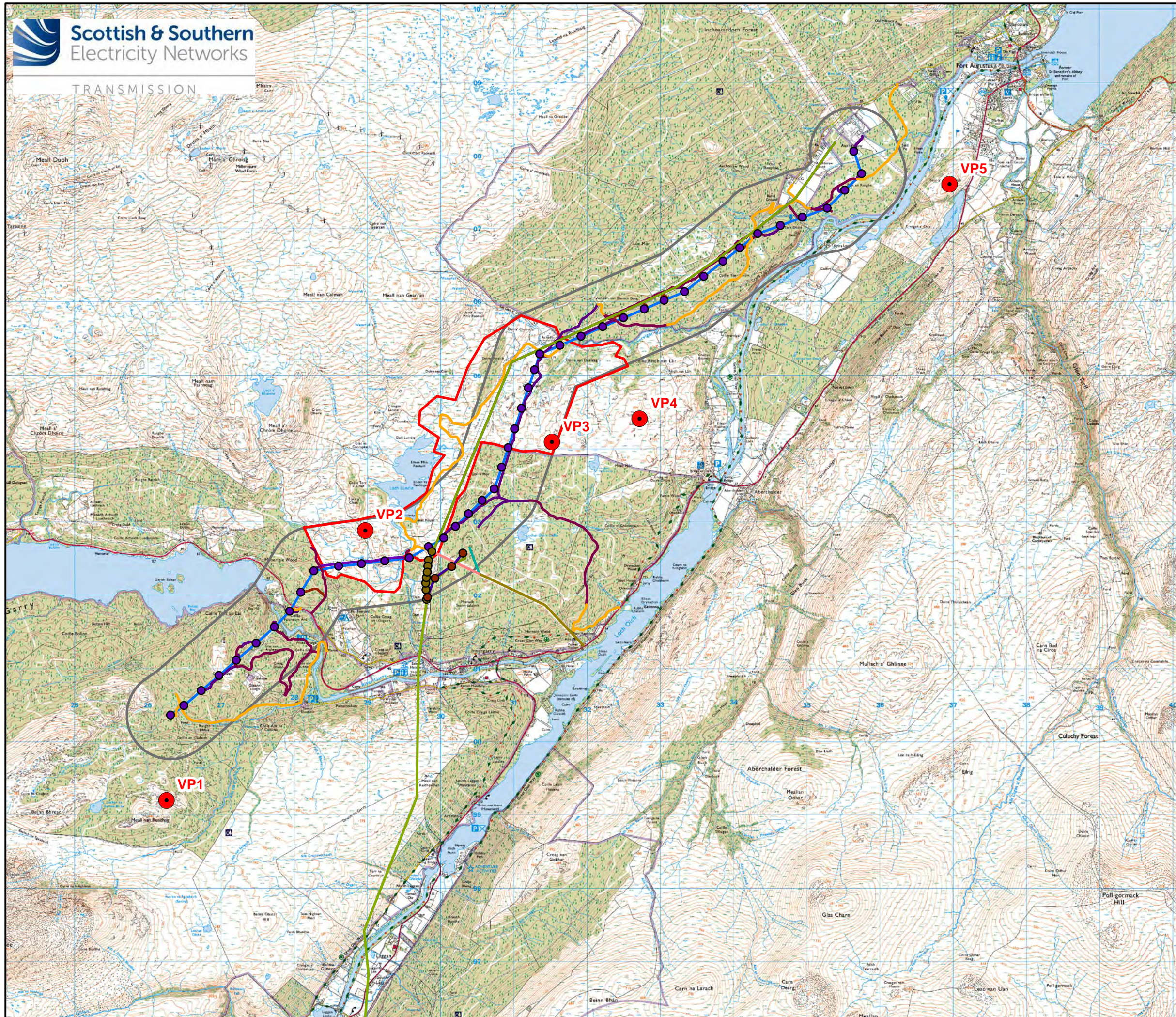
Date	Time Start	Time Finish	VP	Wind Speed*	Wind Direction**	Observer	Precipitation***	Visibility#	Cloud Cover##	Cloud Base###
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14/03/2022	10:30	13:30	1	3	SE	JP	0-1	E	6	1000
14/03/2022	14:00	15:30	1	3	SE	JP	0-1	E	6	1000
16/03/2022	11:40	14:40	4	1-2	SW	HA	0	E	8-2	1000
16/03/2022	15:10	17:40	4	1-2	SW	HA	0	E	8-2	1000
17/03/2022	07:30	10:30	5	0-4	WSW	HA	0-1	E	1-8	1000-400
17/03/2022	09:00	12:00	3	2-3	SW	SW	1	E	8	900
18/03/2022	14:00	17:00	2	3	SW	MS	0	E	7	900
18/03/2022	07:45	11:15	4	3	SW	HA	0	E	5	900
22/03/2022	11:35	13:05	4	2	SW	MS	0	E	4	1000
22/03/2022	09:40	12:40	3	2	SW	JP	0	E	4	1000
22/03/2022	14:10	15:10	3	2	SW	MS	0	E	4	1000
06/04/2022	11:00	14:00	2	3	SE	MS	0	E	6	600
06/04/2022	07:15	10:15	3	3-4	SE	DP	0	E	6	700
06/04/2022	10:55	14:55	4	3	SE	DP	0	E	6	700
11/04/2022	16:30	19:30	2	2	WSW	MS	0	E	5	800
11/04/2022	11:55	14:55	3	2	W	MC	0	E	5	800
11/04/2022	16:15	19:15	4	2	W	MC	0	E	5	800
13/04/2022	07:00	10:00	1	4	N	MS	1	G	8	400
14/04/2022	07:50	10:50	5	2	N	MC	0	G	8	250
15/04/2022	10:35	13:35	1	2	S	MC	0	E	6	1200
21/04/2022	11:15	14:15	2	2-3	E	MS	0	E	3	1500
21/04/2022	12:30	15:30	1	2-3	E	DP	0	E	5	1200
29/04/2022	06:30	09:30	3	3	S	MS	1	G	8	500
02/05/2022	17:30	20:30	2	2	SE	MS	0	E	5	800
04/05/2022	09:10	12:10	5	3	W	DP	0	E	7	600

Date	Time Start	Time Finish	VP	Wind Speed*	Wind Direction**	Observer	Precipitation***	Visibility#	Cloud Cover##	Cloud Base###
04/05/2022	06:00	09:00	4	3	W	MS	0	E	7	600
04/05/2022	10:15	13:15	3	2-3	W	MS	0	E	8	600
12/05/2022	11:10	14:10	5	4	SSW	MC	2	G	8	350
23/05/2022	06:00	09:00	4	4	W	MS	0-1	G	8	500
23/05/2022	10:00	09:00	3	3	W	HA	0-1	G	8	500
27/05/2022	05:05	08:05	2	4	WSW	MS	1	G	8	600
30/05/2022	07:15	10:15	1		S	MS	1	G	7	700
02/06/2022	17:00	20:00	2	1-2	SW	MS	0	E	5	1000
07/06/2022	15:25	18:25	1	2	S	MS	0	E	6	1000
10/06/2022	06:30	09:30	2	5	S	MS	0	E	8	600
20/06/2022	12:00	15:00	4	2	W	MS	0	G	8	500
20/06/2022	15:40	18:40	3	2-3	W	MS	0	E	8	600
21/06/2022	05:50	08:50	5	1	W	MS	0	E	5	1000
21/06/2022	11:30	14:30	2	2	W	MS	0	E	6	1000
24/06/2022	08:50	11:50	4	3-4	WSW	MS	0-1	G	8	600
24/06/2022	12:40	15:40	3	3	WSW	MS	0-1	G	8	600
28/06/2022	09:40	12:40	2	2	E	MS	0	E	6	1000
28/06/2022	10:25	13:25	1	2	E	DP	0	E	5	1000
06/07/2022	09:10	12:10	5	3	W	DP	0-1	G	8	750
06/07/2022	09:50	12:50	1	3	W	MS	0-1	G	8	600
18/07/2022	06:30	09:30	4	2	SSW	HA	0	G	8	500
22/07/2022	16:00	19:00	5	3	NE	MC	0	G	7	700
26/07/2022	10:05	13:05	3	2	W	MS	1	G	8	500
26/07/2022	14:00	17:00	4	2	W	MS	1	G	8	500
27/07/2022	07:10	10:10	1	3	W	HA	0	E	7	1000
29/07/2022	05:00	08:00	2	3-4	W	MS	1	G	8	750

Date	Time Start	Time Finish	VP	Wind Speed*	Wind Direction**	Observer	Precipitation***	Visibility#	Cloud Cover##	Cloud Base###
29/07/2022	16:15	19:15	5	3	SW	MS	1	G	8	750
02/08/2022	06:00	09:00	1	2	W	MS	0	E	6	1000
02/08/2022	17:00	20:00	2	2	W	MS	0	E	4	1000
04/08/2022	10:00	13:00	1	3	W	SP	0	E	5	1000
04/08/2022	07:25	10:25	3	2	W	MS	0	E	5	800
04/08/2022	12:00	15:00	4	2-3	W	MS	0	E	6	800
09/08/2022	06:00	09:00	5	4	SW	MS	0	G	8	700
12/08/2022	11:45	14:45	1	2	S	MS	0	E	5	900
15/08/2022	06:20	09:20	2	2-3	SW	MS	0	E	3	1000
15/08/2022	14:00	17:00	5	3	W	MS	0-1	E	8	800
01/09/2022	07:00	10:00	4	1	S	MS	0	E	3	1000
01/09/2022	10:40	13:40	3	1	S	MS	0	E	3	1000
05/09/2022	15:00	18:00	5	2	SE	DP	0	E	4	900
09/09/2022	06:50	09:50	4	3	N	MS	0-1	E	8	600
09/09/2022	10:45	13:45	3	3	N	MS	0	E	6	600
14/09/2022	12:20	15:20	5	2-4	WSW	MC	0	E	4	1000
29/09/2022	12:35	15:35	5	1	SW	SP	0	E	7	1000
29/09/2022	11:05	14:05	1	1	SW	MS	0	E	8	1000
30/09/2022	14:00	17:00	3	3	SW	MS	0	E	7	800
30/09/2022	14:10	17:10	4	3	SW	SP	0	E	7	800

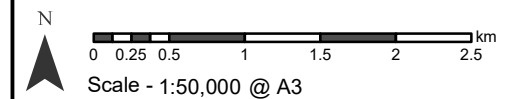
* Wind Speed is based on the Beaufort Scale, **Wind Direction based on a 16 point compass direction; ***Precipitation Scale is 0=none, 1=light showers, 2=persistent rain/heavy showers, 3=heavy rain; # Visibility P=Poor, M=Moderate, G=Good, VG=Very Good, E=Excellent; ## Cloud Cover is based on oktas; ### Cloud base is metres above sea level; Observer, MS=Matt Sullivan, MC =Mike Coleman, SW=Sarah West, HA=Hugh Addlesee, DP=Dave Pullan, JP=John Picton, IF=Ian Ford

Appendix B: Flightline Maps



Legend

- Proposed OHL Alignment (Steel Lattice Towers)
- Proposed Steel Lattice Tower
- Fort Augustus to Fort William OHL (Temporary OHL Diversion)
- Fort Augustus to Fort William OHL (To Be Dismantled)
- Fort Augustus to Fort William OHL (To Be Diverted)
- Fort Augustus to Fort William OHL Permanent Steel Lattice Tower Locations
- Fort Augustus to Fort William OHL Temporary Wood Pole Locations
- Invergarry Tee OHL (To Be Dismantled)
- Invergarry Tee OHL (To Remain)
- Invergarry Tee OHL (Diversion)
- Existing Track (No Upgrades)
- Existing Track (To Be Upgraded)
- New Track (Temporary)
- New Track To Be Retained
- Vantage Point Locations
- Vantage Point Survey Buffer (500m)
- Moorland Walkover Survey Area



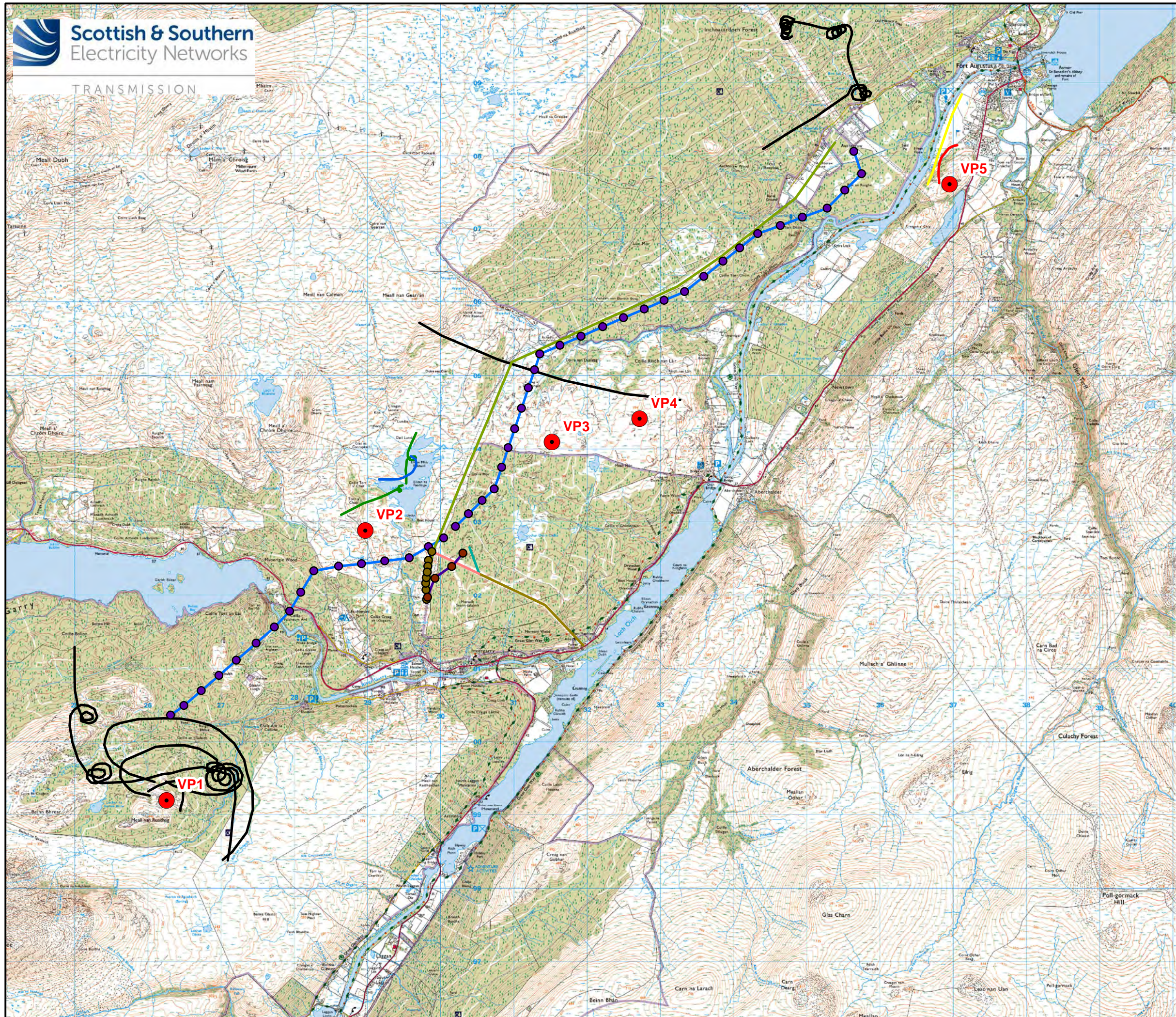
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Project: Coire Glas Grid Connection Project –
400 kV OHL EIA Report

Title: Figure 9.1 - Vantage Point and Moorland
Breeding Bird Survey Areas

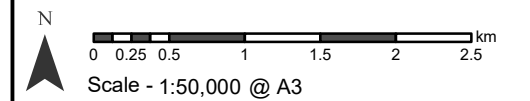
Drawn by: MS Date: 30/03/2023

Drawing:



Legend

- Proposed OHL Alignment (Steel Lattice Towers)
- Proposed Steel Lattice Tower
- Fort Augustus to Fort William OHL (Temporary OHL Diversion)
- Fort Augustus to Fort William OHL (To Be Dismantled)
- Fort Augustus to Fort William OHL (To Be Diverted)
- Fort Augustus to Fort William OHL Permanent Steel Lattice Tower Locations
- Fort Augustus to Fort William OHL Temporary Wood Pole Locations
- Invergarry Tee OHL (To Be Dismantled)
- Invergarry Tee OHL (To Remain)
- Invergarry Tee OHL (Diversion)
- Vantage Point Locations
- Golden Eagle Flightline
- Red Kite Flightline
- Osprey Flightline
- Hen Harrier Flightline
- Peregrine Flightline



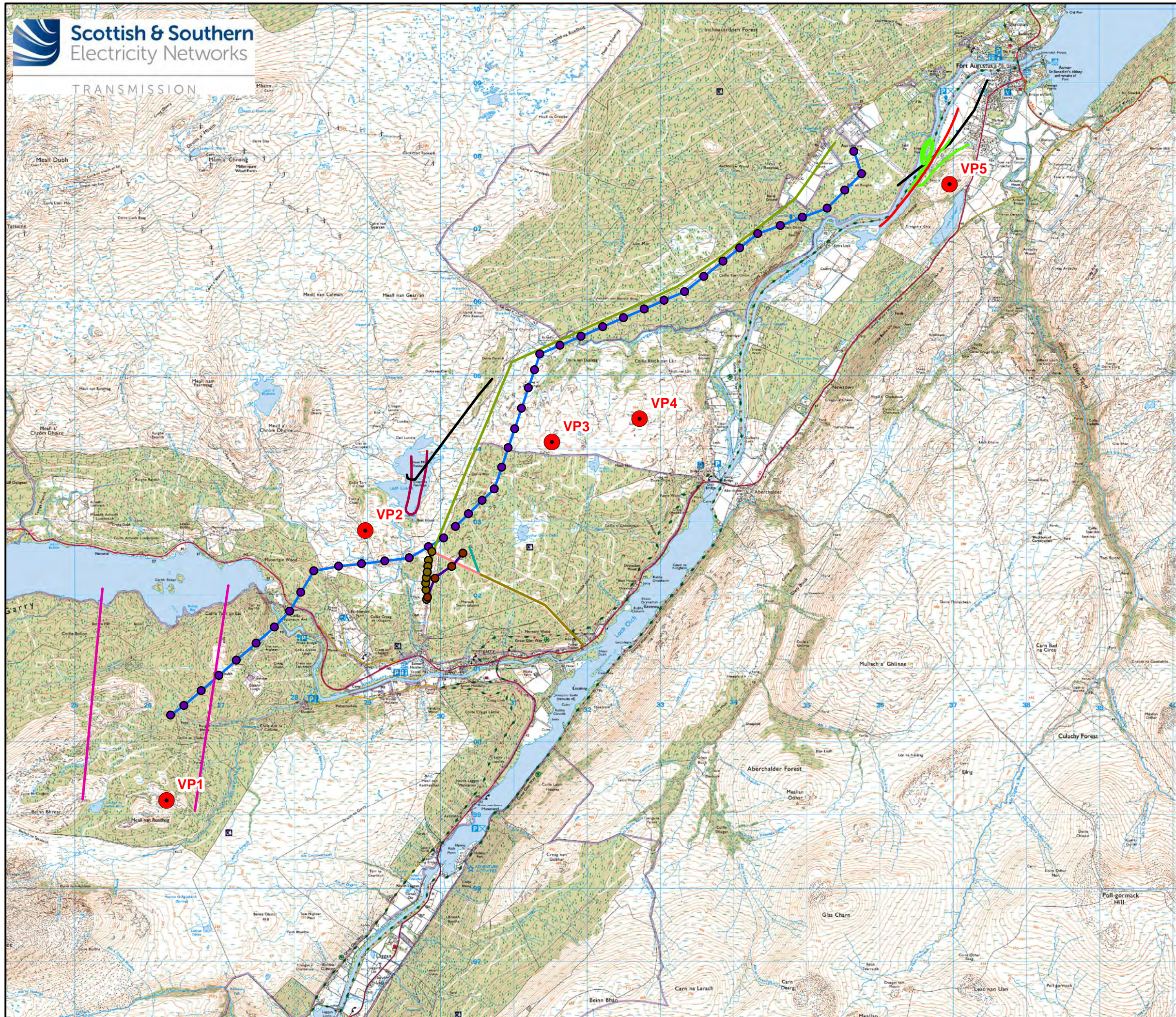
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Project: Coire Glas Grid Connection Project –
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Title: Figure 9.2 - Sensitive Raptor Flightlines

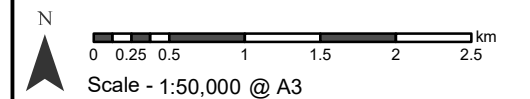
Drawn by: MS Date: 30/03/2023

Drawing:



Legend

- Proposed OHL Alignment (Steel Lattice Towers)
- Proposed Steel Lattice Tower
- Fort Augustus to Fort William OHL (Temporary OHL Diversion)
- Fort Augustus to Fort William OHL (To Be Dismantled)
- Fort Augustus to Fort William OHL (To Be Diverted)
- Fort Augustus to Fort William OHL Permanent Steel Lattice Tower Locations
- Fort Augustus to Fort William OHL Temporary Wood Pole Locations
- Invergarry Tee OHL (To Be Dismantled)
- Invergarry Tee OHL (To Remain)
- Invergarry Tee OHL (Diversion)
- Vantage Point Locations
- Pink footed Goose Flightlines
- Greylag Goose Flightlines
- Canada Goose Flightlines
- Mute Swan Flightlines
- Mallard Flightlines



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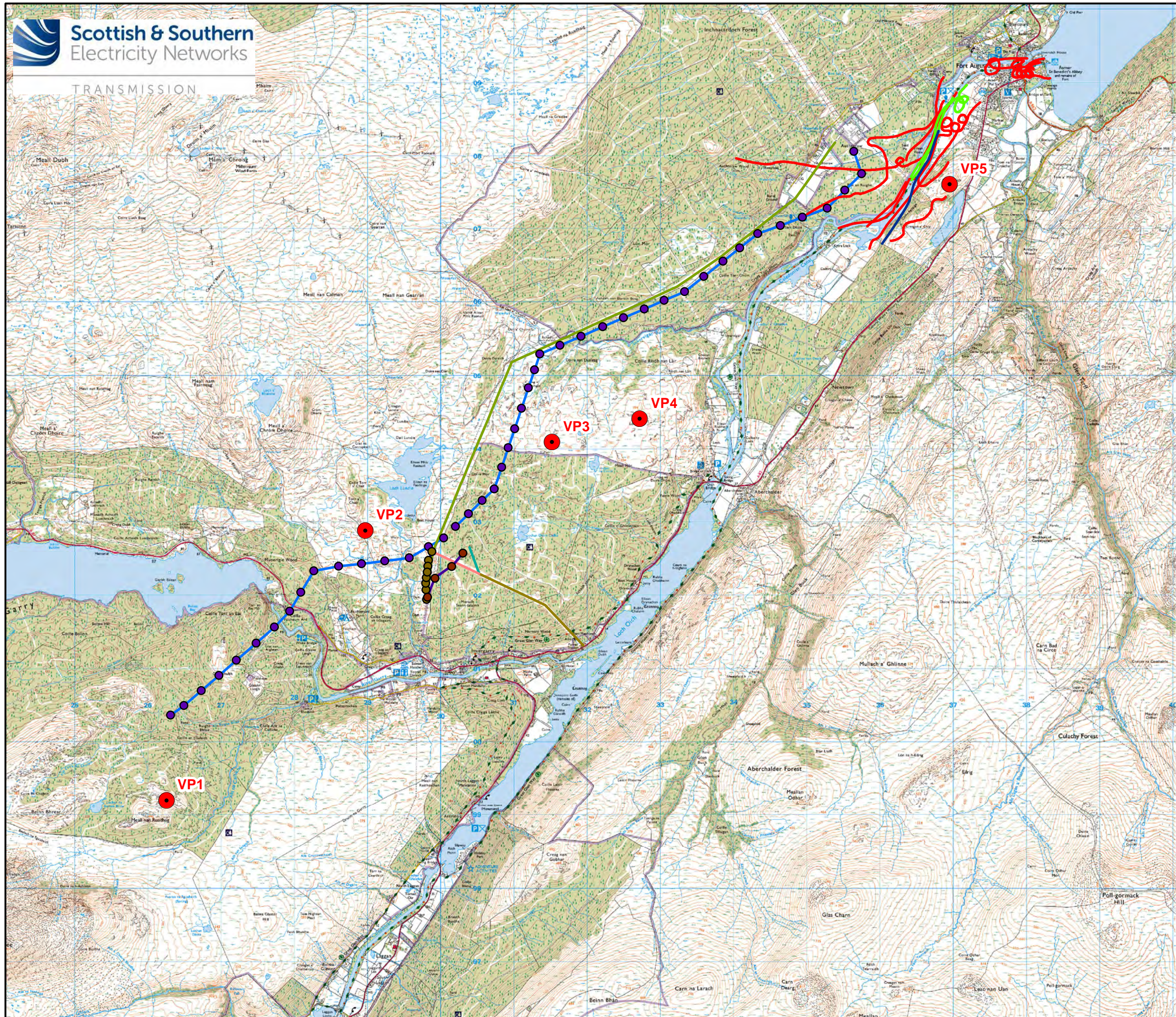
Project: Coire Glas Grid Connection Project –
400 kV OHL EIA Report

Title: Figure 9.3 - Wildfowl Flightlines

Drawn by: MS

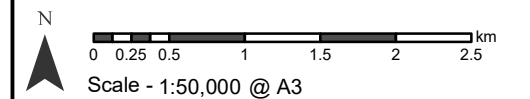
Date: 30/03/2023

Drawing:



Legend

- Proposed OHL Alignment (Steel Lattice Towers)
- Proposed Steel Lattice Tower
- Fort Augustus to Fort William OHL (Temporary OHL Diversion)
- Fort Augustus to Fort William OHL (To Be Dismantled)
- Fort Augustus to Fort William OHL (To Be Diverted)
- Fort Augustus to Fort William OHL Permanent Steel Lattice Tower Locations
- Fort Augustus to Fort William OHL Temporary Wood Pole Locations
- Invergarry Tee OHL (To Be Dismantled)
- Invergarry Tee OHL (To Remain)
- Invergarry Tee OHL (Diversion)
- Vantage Point Locations
- Herring Gull Flightlines
- Common Gull Flightlines
- Great Black-backed Gull Flightlines



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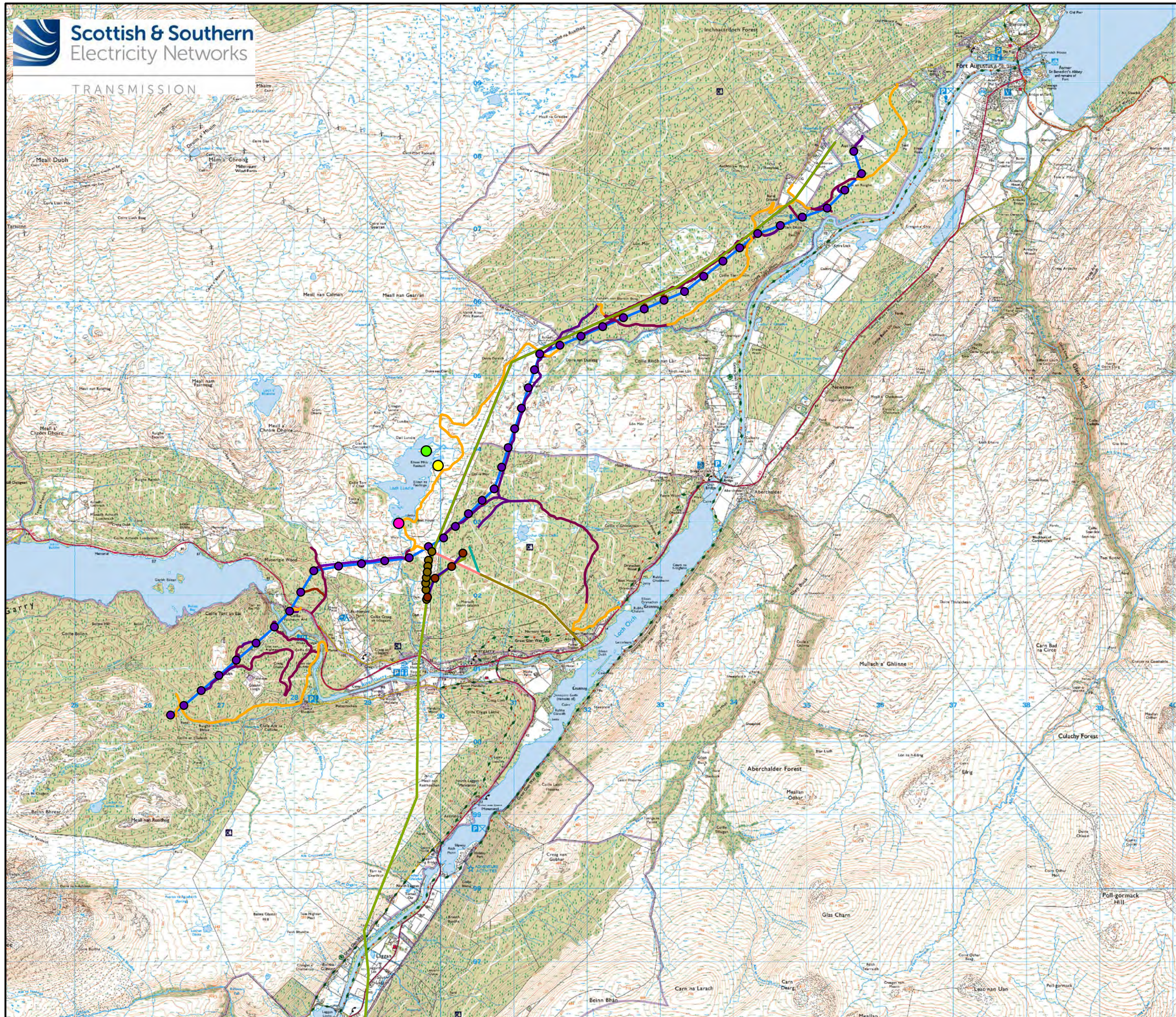
Title: Figure 9.4 - Gull Flightlines

Drawn by: MS

Date: 30/03/2023

Drawing:

Appendix C: Wader Territory Map



Legend

- Proposed OHL Alignment (Steel Lattice Towers)
- Proposed Steel Lattice Tower
- Fort Augustus to Fort William OHL (Temporary OHL Diversion)
- Fort Augustus to Fort William OHL (To Be Dismantled)
- Fort Augustus to Fort William OHL (To Be Diverted)
- Fort Augustus to Fort William OHL Permanent Steel Lattice Tower Locations
- Fort Augustus to Fort William OHL Temporary Wood Pole Locations
- Invergarry Tee OHL (To Be Dismantled)
- Invergarry Tee OHL (To Remain)
- Invergarry Tee OHL (Diversion)
- Existing Track (No Upgrades)
- Existing Track (To Be Upgraded)
- New Track (Temporary)
- New Track To Be Retained
- Greenshank Sighting
- Snipe Territory
- Common Sandpiper Territory

N

 Scale - 1:50,000 @ A3

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Title: Figure 9.5 - Wader Territories and Sightings

Drawn by: MS

Date: 30/03/2023

Drawing: