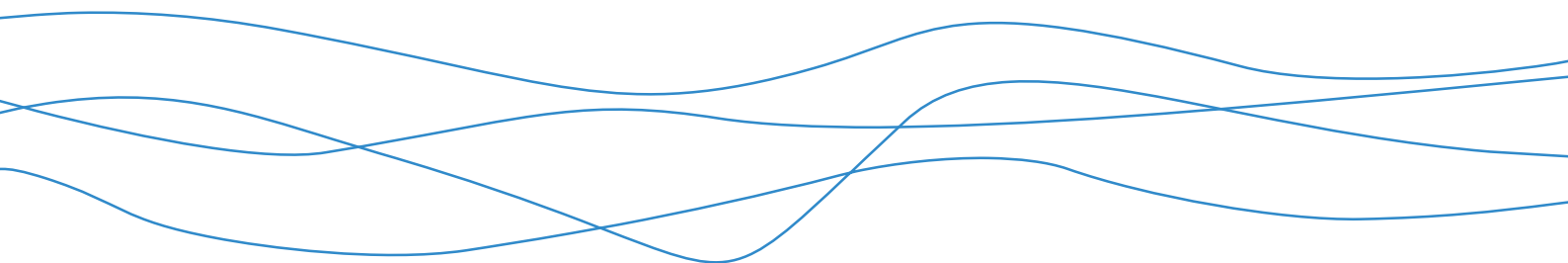




Bowdun Offshore Wind Farm, Onshore EIA Report

Volume 2, Technical Appendix 7.3: Ornithology
Survey Report

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Glossary

Defined Term	Definition
Annex I	Species that shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution, as identified in Annex 1 of the Birds Directive (Council Directive 2009/147/EC).
Applicant (the)	Bowdun Offshore Wind Farm Limited.
Bowdun Offshore Wind Farm Limited (Bowdun OWFL)	A Special-Purpose Vehicle (SPV) (legal entity) for the purpose of developing the Project. Bowdun Offshore Wind Farm Limited will be the Applicant for the Offshore Application.
Effect	Term used to express the consequence of an impact, i.e., the result of change or changes on specific environmental resources or receptors. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity of the receptor or resource in accordance with defined significance criteria.
Embedded mitigation	Measures that are adopted as part of the Proposed Development and therefore assessed within the Environmental Impact Assessment (EIA). The proposed approach for the EIA for the Proposed Development is that embedded mitigation includes both primary mitigation and tertiary mitigation. These are defined by the Institute of Environmental Management and Assessment (IEMA) as follows: Primary: Modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project, and do not require additional action to be taken. Tertiary: Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.
Environmental Impact Assessment (EIA)	Assessment of the potential likely significant effects of the Proposed Development on the physical, biological, and human environment during construction, Operations and Maintenance and decommissioning.
European Sites	This term recognises Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) which protect species and habitats shared across Europe and were originally designated under European legislation.
Intertidal area	The area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS).
Impact	A change caused by an action that occurs during a project's lifetime.
Landfall	The area in which the Offshore Export Cables make landfall and is also the transitional area between the Offshore Transmission Assets and the Onshore Transmission Assets. Located in the intertidal area (see definition above) at Benholm.
Mean High Water Springs (MHWS)	The average tidal height throughout a year of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.

Defined Term	Definition
Mean Low Water Springs (MLWS)	The average tidal height throughout a year of two successive low waters during those periods of 24 hours when the range of the tide is at its greatest.
Offshore Generation and Transmission Assets	The infrastructure of the Proposed Development required to transmit the generated electricity comprising of the Offshore Substation Platforms, Offshore Export Cables and associated infrastructure up to MHWS.
Onshore	Area Project landward of Mean Low Water Springs.
Onshore Export Cable	The cables that transfer electricity from Landfall to the Substation.
Onshore Export Cable Corridor	The agreed corridor within which the required export cables will be sited and consent will be sought.
Onshore Scoping Report	The Report that presents the findings of the EIA scoping process undertaken for the Proposed Development with the purpose of obtaining a Scoping Opinion from the Local Planning Authority. The Report defines what is intended to be assessed and reported as part of the EIA.
Onshore Transmission Assets	The transmission infrastructure associated with the Project above MLWS which is covered in the Onshore EIA Report.
Pre-Application Consultation (PAC)	Statutory pre application engagement with communities and stakeholders with regard to the consent applications for the Project.
Project (the)	An overarching term for the Bowdun Offshore Wind Farm (Bowdun OWF) comprising the offshore and onshore infrastructure required to generate and transmit electricity from the Array Area to the onshore Grid Connection Point (GCP). The Project includes the Offshore Generation Assets, the Offshore Transmission Assets and the Onshore Transmission Assets.
Proposed Development	Term used to define the Onshore Infrastructure associated with the Project landward of mean low water springs for which consent is being sought.
Qualifying Features	The features for which a European Site has been officially designated to protect.
Ramsar Site	Wetlands of international importance, designated under the Ramsar Convention on Wetlands of International Importance 1971.
Schedule 1	Schedule 1 birds are specially protected under the Wildlife & Countryside Act 1981. This means that it is an offence to intentionally or recklessly disturb any wild bird included in Schedule 1 whilst they are building a nest, or is in, on or near a nest containing eggs or young; or to disturb dependent young even if not in the nest.
Scoping Boundary	The boundary within which all elements of the Proposed Development will be located. The Scoping Boundary comprises the Landfall, Onshore Export Cable Corridor which starts at mean low water springs and Substation. This area may be refined through future site selection work, with details presented in the Onshore EIA Report.
ScotWind Leasing Round	A seabed leasing round run by Crown Estate Scotland to grant property rights for the seabed in Scottish waters for new commercial scale offshore wind project development. ScotWind

Defined Term	Definition
	Leasing must be sited within Plan Option Area of the Sectoral Marine Plan.
Site of Special Scientific Interest (SSSI)	Site of Special Scientific Interest is a statutory designation made by NatureScot under the Nature Conservation (Scotland) Act 2004. These sites are of particular scientific interest due to important biological (e.g. a rare species of fauna or flora), geological or physiological features.
Special Protection Areas (SPAs)	SPAs are sites that are designated to protect rare or vulnerable birds (as listed on Annex I of the Directive 2009/147/EC on the conservation of wild birds), as well as regularly occurring migratory species.
Statutory consultee	Organisations and bodies, defined by statute, who must be consulted on relevant planning applications. Of relevance to the Proposed Development this includes NatureScot; Scottish Environment Protection Agency (SEPA); Historic Environment Scotland, and any other public body which the planning authority (The Highland Council) considers is likely to have an interest in the Proposed Development by reason of that body's specific environmental responsibilities or local and regional competencies.
Study area	For each environmental topic, the baseline environment will be characterised, and the potential environmental impacts will be described within a topic-specific 'study area'. The study areas are defined for each topic in the Onshore Scoping Report and are based on the maximum spatial extent across which potential impacts of the Proposed Development may be experienced by the relevant receptors (i.e., zone of Influence).
Substation	The onshore Substation which is part of the electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse, by means of electrical transformers.
Thistle Wind Partners (TWP)	The Joint Venture (JV) of DEME Group, Qair, and Aspiravi as the energy companies that have partnered to develop the Proposed Development.
UK Birds of Conservation Concern (BoCC) Red and Amber lists	BoCC is a well-established, well-respected process for identifying conservation priorities for birds in the UK, Channel Islands and Isle of Man. It uses quantitative assessments against standardised criteria to allocate species into one of three lists, Red, Amber or Green, depending on their level of conservation concern; with those that have either suffered severe declines, or are threatened with global extinction, appearing on the Red list of species of high conservation concern. The first review to use this traffic light system was published in 1996. Since then it has been repeated, roughly every six years. This represents the 5th edition or BoCC5.
400 kV Cable Corridor	The 400 kV Cable Corridor will house the cabling required for the onward transmission from the Substation to the proposed SSEN-T substation at Hurlie.

Acronyms

Acronym	Definition
BoCC	Birds of Conservation Concern
BOU	British Ornithologists' Union
BTO	British Trust for Ornithology
EC	European Commission
EIA	Environmental Impact Assessment
GIS	Geographic Information System
NESRSG	North East Scotland Raptor Study Group
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
PAC	Pre-Application Consultation
RSPB	Royal Society for the Protection of Birds
SBL	Scottish Biodiversity List
SPA	Special Protection Area
SSEN	Scottish & Southern Electricity Networks
SSSI	Site of Special Scientific Interest
TWP	Thistle Wind Partners
UK	United Kingdom

Table of Units

Units	Definition
km	Kilometres
kV	Kilovolt
m	Metres

1 Introduction

1.1 Background

- 1.1.1 This Terrestrial Ornithology Appendix presents the Baseline Ornithology Assessment, giving details of the September 2023 to May 2024 foraging goose surveys and the September 2023 to March 2024 intertidal and nearshore surveys undertaken. It also provides details of desk studies identifying statutory sites of ornithological importance in the area and pre-existing records of bird species of conservation concern.
- 1.1.2 RPS was commissioned by Thistle Wind Partners (TWP) to undertake the foraging goose and inter-tidal ornithology surveys and the desk study.
- 1.1.3 For brevity in this Appendix, the Bowdun Offshore Wind Farm is referred to as the ‘Project’ and the onshore elements of the Project, landward of Mean Low Water Springs (MLWS), are referred to as the ‘Proposed Development’. The location of the onshore elements of the Project is shown in the Onshore Environmental Impact Assessment (EIA) Report Figure 1.1, Volume 1, Introduction. The Project is part of the ScotWind Programme and is located 38 km off the coast of Inverbervie, Aberdeenshire.
- 1.1.4 The Proposed Development would include Landfall at Benholm Bay between Gourdon and Johnshaven, Aberdeenshire. Onshore Export Cables would connect the Offshore Generation and Transmission Assets of the Project to the Substation. The Substation is to be located within 2 km of the grid connection point for the Project, which is a new substation to be constructed by Scottish & Southern Electricity Networks Transmission (SSEN-T) in Fetteresso Forest (hereafter referred to as ‘Hurlie’). Additional 400 kV Cables would connect the Proposed Development to Hurlie. **Error! Reference source not found.**
- 1.1.5 The Baseline Ornithology Assessment supports the Onshore EIA Report, specifically Volume 1, Chapter 7: Biodiversity. This Onshore EIA Report accompanies the application to Aberdeenshire Council for Planning Permission in Principle (PPP) for the Proposed Development.

1.2 Report Aims

- 1.2.1 This report aims to:
- identify statutory sites of ornithological importance in the area and existing records of bird species of conservation concern within and around the Proposed Development;
 - present the desk study findings on pre-existing bird data for the area within and around the Proposed Development; and
 - present results of the non-breeding season goose surveys, and
 - intertidal surveys;

1.3 Bird Species Names and Conservation Status

- 1.3.1 Bird species names used in this report follow the British List, which is maintained by the British Ornithologists' Union (BOU, 2022), with all species referred to by their British (English) vernacular name. A list of scientific names, as well as details of relevant legislation and conservation status, of all bird species referred to in this report is provided in Annex A.
- 1.3.2 The term "SPA species" is used in this report to refer to a qualifying feature of a Special Protection Area (SPA) identified during the desk study (see section 3.1).
- 1.3.3 The term "bird species of conservation concern" is used in this report to refer to species listed on one or more of the following:
- Schedule 1 of the Wildlife and Countryside Act (1981) as amended;
 - Annex I of Directive 2009/147/EC on the conservation of wild birds ("the Birds Directive");
 - The UK Birds of Conservation Concern (BoCC) Red and Amber lists (Stanbury et al., 2021; 2024); and;
 - The Scottish Biodiversity List (SBL).

2 Baseline Ornithology Study Areas

2.1.1 The following study areas were defined for the Baseline Ornithology Assessment:

- the Scoping Boundary - Cable Corridor Search Area;
- the Foraging Goose Survey Area; and
- the Intertidal/Landfall Survey Area.

2.1.2 These are shown in Figure 2.1 and Figure 2.2, and defined below:

- the Scoping Boundary - Cable Corridor Search Area encompasses a 20 km buffer for statutory sites designated for wintering geese, and within that, the 10 km buffer area for statutory sites designated for other ornithological features. Within that is also a 2 km for non-statutory sites of ornithological importance, and the same 2 km buffer for data search records of breeding/roosting birds of conservation concern;
- the Foraging Goose Survey Area of a minimum 500m buffer each side of the Proposed Development, with geese were recorded well beyond this buffer to help build up a wider understanding of goose distribution; and
- the Intertidal Survey Area covered the Landfall Search Area at Benholm and a surrounding 250 m wide buffer of intertidal and nearshore habitats.

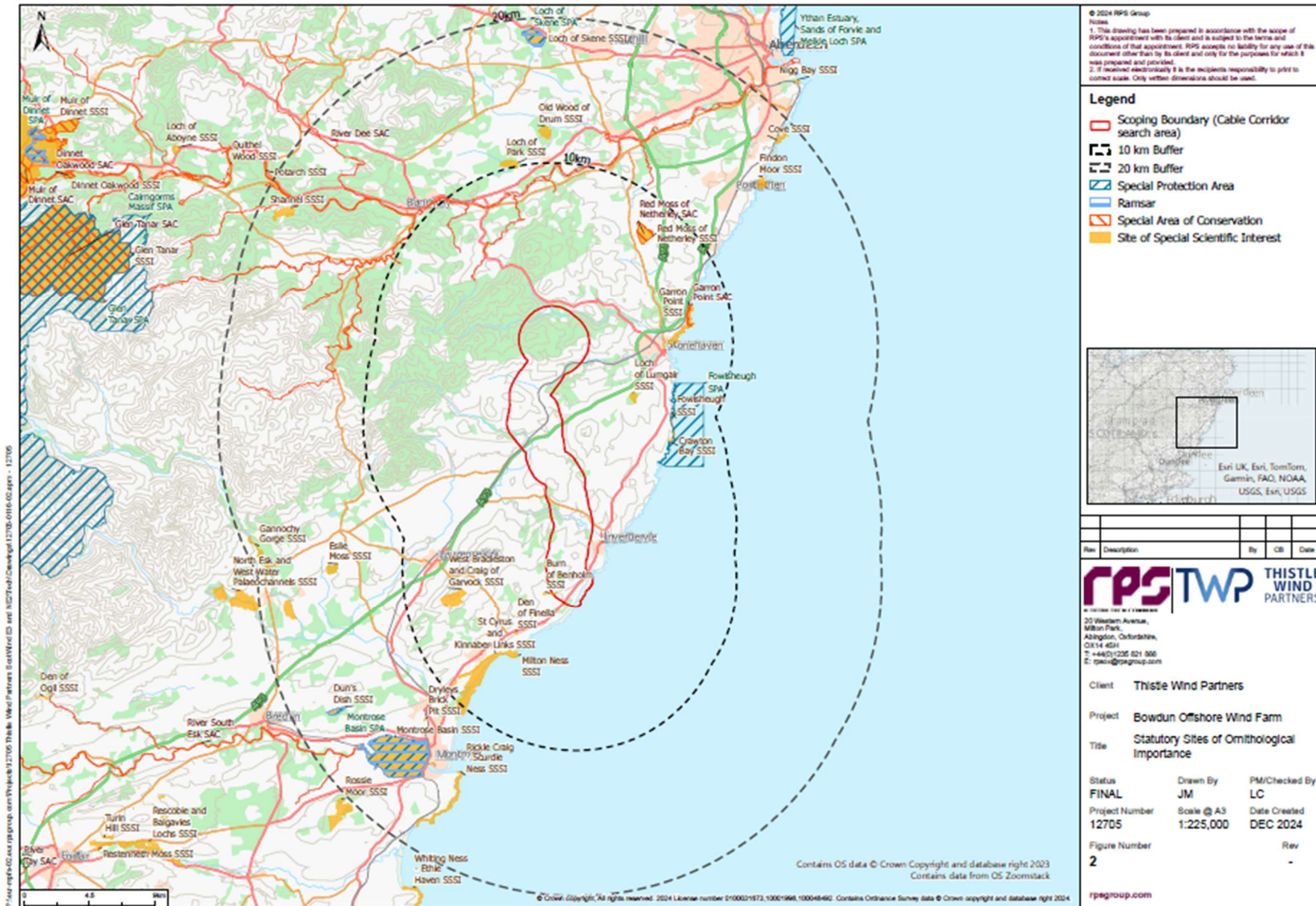
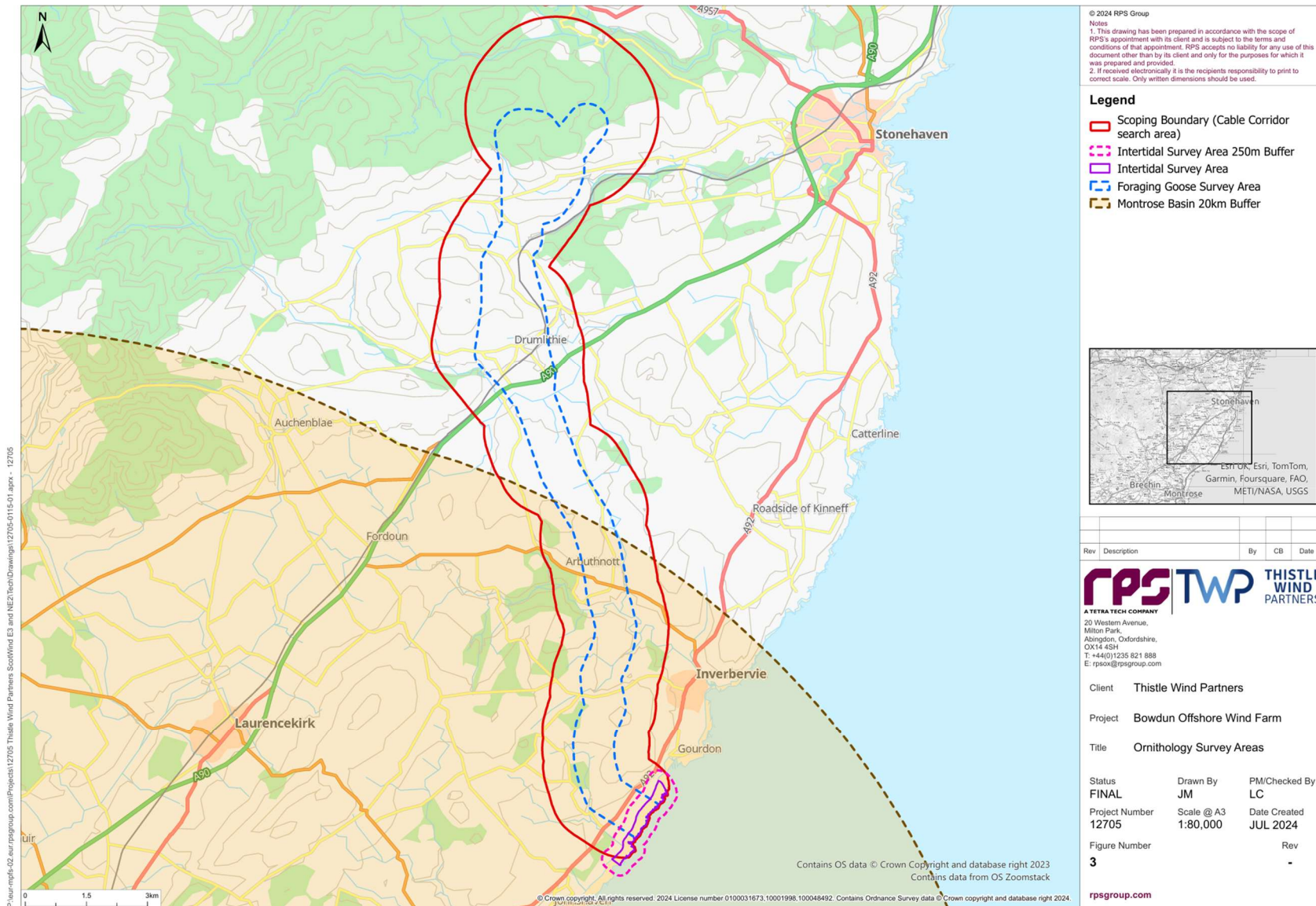


Figure 2.1: Desk study search areas and statutory sites of ornithological importance



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Legend

- Scoping Boundary (Cable Corridor search area)
- Intertidal Survey Area 250m Buffer
- Intertidal Survey Area
- Foraging Goose Survey Area
- Montrose Basin 20km Buffer

EST: UK, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

Rev	Description	By	CB	Date

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Project: **Bowdun Offshore Wind Farm**

Title: **Ornithology Survey Areas**

Status	Drawn By	PM/Checked By
FINAL	JM	LC
Project Number	Scale @ A3	Date Created
12705	1:80,000	JUL 2024
Figure Number		Rev
3		-

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Figure 2.2: Survey areas and extent of overlap between 20 km buffer from the Montrose Basin SPA/Ramsar site and the proposed development

3 Methodology

3.1 Desk Study

Statutory Sites

3.1.1 The desk-study identified the following international and national statutory designated sites of ornithological importance using Geographic Information System (GIS) data from NatureScot’s Spatial Data Hub, and obtaining details of each site from the NatureScot SiteLink website:

- SPAs;
- Ramsar sites; and
- SSSIs with qualifying ornithological features.

3.1.2 The resulting designated sites are shown in

3.1.3 Figure 2.1 above. Further details of these and sites of locally designated sites are reported in Volume 1, Chapter 7: Biodiversity.

Data Requests and Pre-existing Bird Data

3.1.4 In addition to identifying the international and national designated sites present within the search areas, key organisations were contacted as part of the desk study to obtain pre-existing records of bird of conservation concern. The organisations contacted and details of data requests made to each are summarised in Table 3.1.

Table 3.1: Summary of desk study data requests completed for the ornithology baseline

Organisation	Data search details	Summary of information provided
RSPB Scotland	All records of Schedule 1, Annex 1, Red or Amber-listed Birds of Conservation Concern within 2 km of the red line boundary for the period 2015 to 2025 (breeding or non-breeding season).	31 incidental records and 4 records from the UK Swift Screaming Party Survey. In combination, there were 25 species included in the whole dataset.
North East Scotland Raptor Study Group	All records of Schedule 1, Annex 1, Red or Amber-listed raptor species within 2 km of the red line boundary for the period 2015 to 2025	The Group’s response was that it did not hold records for this search area.
North East Scotland Biological Records Centre (NESBReC)	All records of Schedule 1, Annex 1, Red or Amber-listed Birds of Conservation Concern within 2 km of the red line boundary for the period 2015 to 2025. The Centre’s data mapping tool (NESBReC Species distribution maps - NESBReC) was also referred to as part of the desk study.	A large mixed dataset was provided, comprising 1,808 records from various sources, the largest proportion being from eBird or BirdTrack, but with records also submitted to the North East Scotland County Bird Recorder and Wetland Bird Survey records. Records were at a range of resolutions, from 10 km squares to 10 figure grid references. There were 57 different species recorded. The majority of the 1,808 records were accounted for by a relatively small number of species, such as black-

Organisation	Data search details	Summary of information provided
		headed gull, herring gull, and redshank.
Forestry and Land Scotland	All records of Schedule 1, Annex 1, Red or Amber-listed Birds of Conservation Concern within the Fetteresso forest land holding for the period 2015 to 2025.	Less than 15 records were provided, some with grid references and others with place names instead, involving two species.

3.1.5 In addition to these data search requests, the desk study also reviewed relevant details on the areas’ bird populations and distribution from key sources, notably:-

- Francis and Cook (2011) The Breeding Birds of North-East Scotland (which is a 2x2 km tetrad-based atlas of breeding birds, for the period 2002-2006); and
- Wilson, M. W., Austin, G. E., Gillings S. and Wernham, C. V. (2015). Natural Heritage Zone Bird Population Estimates. SWBSG Commissioned report number SWBSG_1504.
- Mitchell, C. (2012). Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust/ Scottish Natural Heritage Report, Slimbridge.

3.1.6 Finally, bird survey results (and survey coverage) were reviewed in publicly available planning application documentation of the projects in proximity to the Proposed Development, notably Hurlie for the conifer plantation and a range of grid, wind farm, solar and other projects.

3.2 Field Surveys

3.2.1 During pre-application consultation in February 2024, NatureScot noted that the scope and methodology for surveys was acceptable and advised that they would normally recommend that two years of surveys are completed for this type of project unless it could be demonstrated that a shorter period was sufficient. Subsequently, the survey methods and extent were agreed with NatureScot, as noted in Sections 9.4 and Section 9.5.3 of the Scoping Report, and following presentation of further details on the non-breeding season results in the September 2024 Scoping Report, NatureScot did not require a second non-breeding season survey. Given the one year survey results and desk study data available, the single non-breeding season survey coverage was therefore considered sufficient. The fieldwork therefore comprised one non-breeding season of goose surveys (late September 2023 to early-May 2024) and one non-breeding season of inter-tidal surveys (late September to late March 2024).

3.2.2 Should the construction of the Proposed Development overlap with the bird breeding season (mid-March to the end of July), a breeding bird survey will form part of the Proposed Development’s Embedded Mitigation. Breeding bird surveys were scoped out of the baseline surveys, on this basis. In addition, this approach was considered appropriate because the intensively farmed habitat

prevalent within the Proposed Development was evidently highly unlikely to support breeding species of conservation importance, based on desk study data. In addition, there were no species likely to breed in such habitat that had potential connectivity to SPA or Ramsar sites (and therefore no risk of impacts on SPA/Ramsar site breeding qualifying interests) (Francis and Cook (2011)). The same applies to the conifer plantation at Fetteresso, mainly comprising dense Sitka spruce, an equally poor habitat in this part of Scotland for the great majority of birds of conservation concern (e.g. Calladine *et al.*, 2009), and informed by desk study results (notably the EIA Report (2024) for Hurlie). Finally, to ensure any breeding birds are fully protected, a pre-construction breeding bird survey and nest checks will be carried out, as part of the Embedded Mitigation for the Proposed Development (if any works take place during the breeding season). The extent of this breeding bird survey will encompass the potential disturbance distances from construction activity, with these distances identified using NatureScot guidance (notably Goodship and Furness, 2022 and FLS, 2006), as well as generic guidance available for more common species. Therefore, the habitats indicating the absence of birds of conservation concern, plus the embedded requirement to survey for all breeding birds prior to commencement of the Proposed Development, enabled breeding bird surveys to be scoped out for this PPP stage.

3.2.3 Further details of the survey methods are presented below, and survey areas are shown in Figure 2.2. All surveys were completed by RPS.

Foraging Goose Surveys

3.2.4 Due to the Project landfall and cable route being partially within 20 km of the Montrose Basin SPA and Ramsar site (and therefore potentially within the foraging range of pink-footed and greylag geese (NatureScot, 2016)), foraging goose surveys were completed between September 2023 and early-May 2024 (inclusive).

3.2.5 Methods were based on NatureScot (2017) guidance, with driven transects completed twice per month (except September and May, when single surveys were completed) to map and count flocks of SPA goose species present within the survey area.

3.2.6 Although surveys focused on recording SPA goose species, wader flocks and other notable species (such as large gull flocks) were also recorded during the surveys. Full details of surveys, including dates, times and hourly weather conditions, are included in Table B1, Appendix B.

3.2.7 As shown in Figure 2.2, the Foraging Goose Survey Area covered all of the Proposed Development falling within a 20 km buffer of the Montrose Basin SPA. To provide added context, where geese were seen outside but in proximity to this buffer, they were also recorded to provide wider context and understanding of their distribution during the survey period.

Intertidal Surveys

3.2.8 Due to the presence of intertidal habitat at Benholm Bay, which could support foraging and/or roosting birds of conservation concern during the non-breeding

season, diurnal surveys for intertidal and nearshore birds were completed from September 2023 to March 2024 (inclusive).

- 3.2.9 The surveys were based on a modified version of the non-estuarine coastal waterfowl survey methods (described in Gilbert *et al.*, 1998), with twice-monthly diurnal surveys to count and map waders and other waterbirds present within the proposed landfall area of search and a surrounding 250 m buffer. In general, one monthly survey was centred on high tide and the other on low tide.
- 3.2.10 Surveys involved walking through the survey area, scanning ahead and counting birds on the intertidal zone and nearshore area (out to 250 m from the shore), before walking back through the survey area and counting birds on the landward section. Surveys focused on recording waders and aggregations of other species, such as wildfowl and gulls. The survey area is shown in Figure 3. As the survey area was relatively small in length (approximately 2 km), it was not split into smaller count sectors.
- 3.2.11 Full details of survey times are included in Table B1, Appendix B.

3.3 Survey Limitations

Desk Study

- 3.3.1 There were not considered to be any significant limitations on the desk study that was carried out for the baseline characterisation. Where data were obtained from third parties however, whilst it was sense-checked, TWP cannot vouch for its accuracy and cannot be held liable for any errors in these data.
- 3.3.2 As described in Section 2.1.1 existing records of breeding birds were compiled as part of the desk study, and an appraisal of the species likely to be present based on location and habitats present was also completed. As such, this is not considered to represent a constraint to the assessment of potential effects of the Proposed Development on ornithological interests. In addition, to ensure compliance with legislation, pre-construction surveys and nest checks will be completed where any works are proposed during the breeding season, as part of the Proposed Development's Embedded Mitigation.

Field Surveys

- 3.3.3 As tabulated in Table C1, Appendix C, during the foraging goose surveys, there were birds recorded that could not be identified to species level, specifically small numbers of unidentified geese flocks in flight, small numbers of ducks, and groups of sub-adult gull species. Given the lack of these records within the Proposed Development area, these are not considered to hinder the assessment of its effects.

4 Results

4.1 Desk Study

Statutory Sites

4.1.1 Two SPAs, one of which is also designated as a Ramsar site, were identified within the desk study search areas specified in Section 2. Additionally, two SSSIs partly designated for ornithological features were identified within the desk study search areas. Both SSSIs underlie the corresponding SPAs. A summary of all these designated sites is presented in **Error! Reference source not found.**4.1 and locations are shown in Figure 2.1.

Table 4.1: Summary of statutory sites within the desk study search areas

Site name	Designation(s)	Distance from survey areas	Qualifying ornithological features
Sites of international importance (SPAs and Ramsar sites)			
Fowlsheugh	SPA	6.6 km	Breeding populations of fulmar, common guillemot, herring gull, kittiwake, razorbill and seabird assemblage. Source: NatureScot (2009)
Montrose Basin	SPA and Ramsar site	14.7 km	Non-breeding populations of dunlin, eider, greylag goose, knot, oystercatcher, pink-footed goose, redshank, shelduck, wigeon and waterfowl assemblage. Source: NatureScot (2018; 2024)
Sites of national importance (SSSIs)			
Fowlsheugh*	SSSI	6.6 km	Breeding populations of fulmar, guillemot, kittiwake, puffin razorbill and breeding seabird colony. Source: NatureScot (2011)
Montrose Basin**	SSSI	14.7 km	Breeding population of eider. Non-breeding populations of eider, greylag goose, knot and mute swan. Designated for non-ornithological features also. Source: NatureScot (2010)
*SSSI is a component of the Fowlsheugh SPA; **SSSI is a component of the Montrose Basin SPA			

NESRSG Records

4.1.2 The NESRSG stated that they had no records of breeding golden eagle or white-tailed eagle within a 6 km buffer of the Proposed Development infrastructure and no records of any other Schedule 1 - listed breeding raptor species within the 2 km of the Proposed Development.

RSPB Records

4.1.3 The RSPB returned a relatively limited number of records within 2 km of the Proposed Development. These comprised 25 species, all common and widespread species that were included in the NESBRec dataset.

NESBRec Records

4.1.4 The Biological Records for the North East Scotland returned a total of 1,808 records within 2 km of the Proposed Development. These comprised 37 identified species and two subspecies as well as several records of birds that were only identified to the genus level. The NESBRec records are provided in Volume 1, Chapter 7: Biodiversity.

4.2 Field Surveys

Foraging Goose Surveys

Registrations of Pink-footed Goose

4.2.1 Pink-footed goose was recorded foraging or roosting during all months of the foraging goose surveys except September 2023 and May 2024. The species was also seen in flight in September 2023 but not in May 2024. In total, there were 41 registrations of this species, including several of birds in flight. For the sake of completeness, pink-footed geese that were seen outside the survey area were also mapped, to help build up a more comprehensive understanding of this species' foraging distribution. Results are given in Table 4.2.2 and shown in Figures 4a – 4i, Appendix D. For clarity, Figures 7.10.1 to 7.10.8 in Volume 1, Chapter 7: Biodiversity, Onshore Ecology and Ornithology of the Onshore EIA Report, also give the results for geese recorded foraging and roosting, excluding those in flight (as birds in flight were passing over the area and therefore are less relevant to the assessment).

Table 4.2: Summary of pink-footed goose registrations during the September 2023 – May 2024 foraging goose surveys

Survey date	Survey times	Number of birds	Within SPA 20 km buffer	Within cable corridor route 1 km buffer
26/09/2023	10:30 – 14:30	0	-	-
27/09/2023	09:30 – 15:30	468*	-	-
28/09/2023	09:00 – 12:00	383*	-	-
29/09/2023	09:00 – 12:00	0	-	-
10/10/2023	15:00 – 18:00	0	-	-
11/10/2023	11:00 – 17:00	220	No	Yes
12/10/2023	09:00 – 12:00	0	-	-
13/10/2023	10:30 – 13:30	7*	Yes	Yes
		1,000	No	No
		400*	No	No
25/10/2023	10:00 – 17:00	80	No	No
26/10/2023	09:00 – 17:00	1,000+	No	No
		450	No	No

Survey date	Survey times	Number of birds	Within SPA 20 km buffer	Within cable corridor route 1 km buffer
27/10/2023	09:00 – 12:30	412 (12 of which flew in from south-east)	No	No
08/11/2023	09:00 – 16:00	81	No	No
		800 (100 of which flew in from south)	No	No
09/11/2023	09:00 – 12:00	1,000+	No	Yes
27/11/2023	13:00 – 16:00	0	-	-
28/11/2023	09:00 – 12:00	1,500	No	No but <200 m away
29/11/2023	09:00 – 11:30	2,000 (1,500 of which flew in from south)	No	No but <200 m away
12/12/2023	13:45 – 16:00	0	-	-
13/12/2023	09:00 – 12:00	0	-	-
14/12/2023	09:00–12:00	0	-	-
18/12/2023	12:45 – 15:30	1,000 (40 of which flew in from north-west; another 200 flew from same direction but continued flying southeast)	No	No
19/12/2023	09:00 – 16:00	2,000+ (1,566 of which flew into field between 10-10:30am)	No	No
20/12/2023	09:00 – 11:45	2,000	No	No, but <100 m away
		1,000	No	No
23/01/2024	14:30 – 16:00	0	-	-
24/01/2024	09:00 – 11:30	800-1,000	No	No
29/01/2024	14:00 – 16:00	200*	-	-
		40	No	No
30/01/2024	14:00 – 16:30	8	No	No
31/01/2024	09:00 – 12:00	120	No	No
		30	No	No
07/02/2024	15:00 – 17:00	600	No	No
08/02/2024	14:30 – 17:00	1,000	No	No
09/02/2024	09:00 – 12:00	0	-	-
26/02/2024	13:30 – 16:30	160+	No	No

Survey date	Survey times	Number of birds	Within SPA 20 km buffer	Within cable corridor route 1 km buffer
27/02/2024	13:00 – 16:00	500	No	No
27/02/2024	13:00 – 16:00	100*	Yes	No
28/02/2024	09:00 – 12:00	400	No	No
07/03/2024	13:00 – 17:00	300	No	No
08/03/2024	09:00 – 11:00	300	No	No
25/03/2024	14:00 – 17:00	300	No	No
26/03/2024	13:00 – 17:00	14	No	No
26/03/2024	13:00 – 17:00	300-400	No	No
27/03/2024	08:00 – 11:00	0	-	-
03/04/2024	13:30 – 17:00	50	No	No
04/04/2024	09:00 – 17:00	300 (53 of which flew in from southeast)	No	No
05/04/2024	09:00 – 12:30	31	No	No
05/04/2024	09:00 – 12:30	50	No	No
22/04/2024	15:30 – 17:00	2	No	No
23/04/2024	09:00 – 17:00	0	-	-
24/04/2024	09:00 – 13:00	0	-	-
01/05/2024	16:00 – 18:00	0	-	-
02/05/2024	09:00 – 17:00	0	-	-
03/05/2024	09:00 – 12:30	0	-	-
<p>*Birds in flight + = minimum count; additional birds may have been present.</p>				

Registrations of Other Species

- 4.2.2 In addition to pink-footed goose, a further 21 species were recorded during the foraging goose survey, primarily wildfowl, waders and gulls. A summary of all species recorded (except pink-footed goose, which is described above) is presented in C1, Appendix C. Registrations of wildfowl and wader species are shown in Figures 5a-5h, Appendix D.
- 4.2.3 Most of these species were recorded infrequently and/or in low numbers (with each registration comprising ten or fewer birds). Curlew was the species recorded most frequently (during seven survey visits), while golden plover, herring gull, lesser black-backed gull and a mixed flock of redwing and fieldfare were recorded in the highest numbers.
- 4.2.4 Records included four Montrose Basin SPA qualifying species (in addition to pink-footed goose), as detailed in Table C1, Appendix C, but numbers were very low, with greylag goose (one record of one goose), wigeon (one record of 30 birds), oystercatcher (four records of one to three birds) and redshank (one record of four birds). In addition, herring gull was recorded, which is a Fowlsheugh SPA qualifying species, albeit as a breeding species. Whilst the

Proposed Development is within the foraging range of this species (NatureScot 2023), the numbers recorded were 60 in November 2023, 35 birds in March 2024, 30 in April Visit 1 and 5 in Visit 2, and 0 in May, out of an SPA population of 3,190 pairs. Therefore, even if these birds were breeding adults associated with the Fowlsheugh SPA, there would be no adverse impact on the SPA objectives from the Proposed Development.

Intertidal Surveys

- 4.2.5 A total of 38 species were observed during the intertidal surveys, with a similar number and range of species recorded during the low tide counts (29 species) and high tide counts (31 species).
- 4.2.6 Records included six Montrose Basin SPA species, namely pink-footed goose, shelduck, wigeon, eider, oystercatcher and redshank.
- 4.2.7 Pink-footed geese were recorded twice, specifically a single bird in January 2024 and a flock of 85 birds in February 2024. These birds were within 20 km of the Montrose Basin SPA/Ramsar Site but evidently use of the intertidal and nearshore areas is limited and only involves a very small and therefore insignificant proportion of the SPA/Ramsar Site's over-wintering population.
- 4.2.8 Herring gull were also recorded, which is a Fowlsheugh SPA qualifying species, although (as noted above) the designation relates to the breeding population and not the non-breeding season. The maximum count was 330 birds in November 2023, with the next highest count being 285 in January 2024. As noted above, even if these birds were breeding adults associated with the Fowlsheugh SPA (extremely unlikely), there would be no adverse impact on the SPA objectives from the Proposed Development.
- 4.2.9 Counts of other species were typically less than 50 birds per survey. There were however exceptions to this. Pink-footed goose, wigeon and curlew were recorded at times in higher numbers. Numbers of oystercatcher, lapwing, black-headed gull, herring gull and lesser black-backed gull occasionally exceeded 100 birds.
- 4.2.10 The majority of recordings were distributed throughout the survey area during all surveys from September to March. All registrations were of foraging or resting birds.
- 4.2.11 During low tide counts black-headed gull, curlew, eider, redshank, oystercatcher, herring gull were the species most frequently recorded, followed by lapwing.
- 4.2.12 Turnstone, redshank, oystercatcher, lapwing, herring gull and curlew were the species most frequently recorded during high tide counts. A single observation of dunlin (one bird) was noted during the intertidal surveys. This occurred in March at high tide.
- 4.2.13 There was also an incidental record of five dead birds (four razorbill and a probable auk species) washed up on the shore during the low tide survey in late October 2023. Storm Babet hit the east coast of Scotland from 18-21 October, resulting in a prolonged period of strong easterly winds, often gale force which

affected the entire east coast for almost two weeks. This created many problems for seabirds and may have been the cause of such mortalities.

- 4.2.14 A summary of registrations of each species is presented in Table 4.3 (low tide surveys) and Table 4.4 (high tide surveys). Registrations of non-passerine species are shown in Appendix D Figures 6a-6g for wildfowl, 7a-7g for waders and 8a-8g for other non-passerine species.

Table 4.3: Summary of September 2023 – March 2024 low tide Intertidal survey results within the intertidal area and in the additional 250m buffer surveyed

Species	Total count													
	Sept		Oct		Nov		Dec		Jan		Feb		Mar	
	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer
Shelduck					5									
Wigeon					13		17	32	2		7	8	10	
Mallard						8	9		3		2	2		
Tufted duck							39							
Eider	7	9		1		15	37		51		39		38	
Oystercatcher	36	1	17	58	52	26	12	33	10	40	28	21	28	14
Lapwing	150	122			80		1	103		120				
Golden plover			2			2								
Curlew	17	90	11	10	33	18	6		13	25	11	21	27	2
Turnstone			2	6	36		1	1			12		4	
Snipe					12		2		1					
Redshank	12	8	18	7	25	3	1	4	2		8	1	11	6
Black-headed gull	175	52	20	16	31			1	2		25		6	
Common gull	175													

Species	Total count													
	Sept		Oct		Nov		Dec		Jan		Feb		Mar	
	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer	Within survey area	Within 250 m buffer
Great black backed gull			1	3	3		4		1					
Herring gull	50		55	3	141	11	75	25		285	63	15	12	3
Lesser black-backed gull									3	3				1
Arctic tern		25												
Red-throated diver			1											
Cormorant					1			2				1	2	
Shag		4	1											
Grey heron		1	1	1	4		1			1		1		
Buzzard												1		
Short-eared owl						1								
Kestrel												1		
Skylark											4			
Song thrush												1		
Stonechat													1	
Yellowhammer									43			6		

Table 4.4: Summary of September 2023 – March 2024 high tide Intertidal survey results within the intertidal area and in the additional 250m buffer surveyed

Species	Total count													
	Sept		Oct		Nov		Dec		Jan		Feb		Mar	
	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer
Canada goose		7												
Barnacle goose		12												
Pink-footed goose										1		85		
Wigeon						3			30	23		57		
Mallard	6		4	15		10			31		10	10	9	
Tufted duck								39						
Eider				9		15			63			15	1	
Oystercatcher	126	161	15	31	34	101	64	129		74	8	89	5	31
Lapwing	19			101		135		23		70		120		25
Golden plover						2								
Ringed plover													4	
Curlew	79	42	36	56	30	4	6	5	7	7		93	13	47
Turnstone			34	1	51	9			35	12	34	12	42	17
Dunlin													1	
Purple sandpiper									4			3	1	

Species	Total count													
	Sept		Oct		Nov		Dec		Jan		Feb		Mar	
	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer	Within survey area	Within 250m buffer
Snipe					2		37		4					
Redshank			21		18	15	23	8	24		13	11	21	3
Black-headed gull	104	52	5	16								8	1	
Common gull			17											
Great black-backed gull						4		7			3	1	2	
Herring gull			1			330				20	1	208		10
Lesser black-backed gull									1					
Common guillemot		2												
Red-throated diver				1										
Black-throated diver		1												
Cormorant				2	1		1						1	
Shag			1										1	
Grey heron				1			3			1		4		
Stonechat										1				1
Linnet	20													
Yellowhammer													49	6

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Appendix A: Scientific Names and Conservation Listings of Bird Species

A list of scientific names, as well as details of relevant legislation and conservation status, of all bird species referred to in this report is provided in Table A1.

Table A1: Scientific names and conservation listings of bird species referred to in this report

Species	Scientific name	Schedule 1 / Annex I listings	Conservation listings**
Canada goose	<i>Branta canadensis</i>	-	-
Barnacle goose	<i>Branta leucopsis</i>	Annex I	Amber; SBL
Greylag goose	<i>Anser anser</i>	-	Amber
Pink-footed goose	<i>Anser brachyrhynchus</i>	-	Amber
Mute swan	<i>Cygnus olor</i>	-	Green
Shelduck	<i>Tadorna tadorna</i>	-	Amber
Wigeon	<i>Mareca penelope</i>	-	Amber
Mallard	<i>Anas platyrhynchos</i>	-	Amber
Teal	<i>Anas crecca</i>	-	Amber
Tufted duck	<i>Aythya fuligula</i>	-	Green
Goosander	<i>Mergus merganser</i>	-	Green
Eider	<i>Somateria mollissima</i>	-	Amber
Oystercatcher	<i>Haematopus ostralegus</i>	-	Amber
Lapwing	<i>Vanellus vanellus</i>	-	Red; SBL
Golden plover	<i>Pluvialis apricaria</i>	Annex I	Green; SBL
Ringed plover	<i>Charadrius hiaticula</i>	-	Red
Curlew	<i>Numenius arquata</i>	-	Red; SBL
Turnstone	<i>Arenaria interpres</i>	-	Amber

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Species	Scientific name	Schedule 1 / Annex I listings	Conservation listings**
Knot	<i>Calidris canutus</i>	-	Amber
Dunlin	<i>Calidris alpina</i>	-	Red; SBL
Purple sandpiper	<i>Calidris maritima</i>	Annex I, Schedule 1	Red; SBL
Snipe	<i>Gallinago gallinago</i>	-	Amber
Redshank	<i>Tringa totanus</i>	-	Amber
Kittiwake	<i>Rissa tridactyla</i>	-	Red
Black-headed gull	<i>Chroicocephalus ridibundus</i>	-	Amber; SBL
Common gull	<i>Larus canus</i>	-	Amber
Great black-backed gull	<i>Larus marinus</i>	-	Amber
Herring gull	<i>Larus argentatus</i>	-	Red; SBL
Lesser black-backed gull	<i>Larus fuscus</i>	-	Amber
Arctic tern	<i>Sterna paradisaea</i>	Annex I	Amber; SBL
Common guillemot	<i>Uria aalge</i>	-	Amber
Razorbill	<i>Alca torda</i>	-	Amber
Puffin	<i>Fratercula arctica</i>	-	Red
Red-throated diver	<i>Gavia stellata</i>	Annex I, Schedule 1	Green; SBL
Black-throated diver	<i>Gavia arctica</i>	Annex I	Amber; SBL
Fulmar	<i>Fulmarus glacialis</i>	-	Amber
Cormorant	<i>Phalacrocorax carbo</i>	-	Green
Shag	<i>Gulosus aristotelis</i>	-	Red
Grey heron	<i>Ardea cinerea</i>	-	Green

Species	Scientific name	Schedule 1 / Annex I listings	Conservation listings**
Sparrowhawk	<i>Accipiter nisus</i>	-	Amber
Buzzard	<i>Buteo buteo</i>	-	Green
Short-eared owl	<i>Asio flammeus</i>	Annex I	Amber; SBL
Kestrel	<i>Falco tinnunculus</i>	-	Amber; SBL
Skylark	<i>Alauda arvensis</i>	-	Red; SBL
Song thrush	<i>Turdus philomelos</i>	-	Amber; SBL
Redwing	<i>Turdus iliacus</i>	Schedule 1	Amber
Fieldfare	<i>Turdus pilaris</i>	Schedule 1	Red
Stonechat	<i>Saxicola rubicola</i>	-	Green
Linnet	<i>Linaria cannabina</i>	-	Red; SBL
Yellowhammer	<i>Emberiza citrinella</i>	-	Red; SBL
<p>*Species names and order in which they are listed follow the British List maintained by the BOU (2022); **Red = UK BoCC Red list (Stanbury <i>et al.</i>, 2021), Amber = UK BoCC Amber list, Green = UK BoCC Green list (Stanbury <i>et al.</i>, 2021); SBL = Scottish Biodiversity List</p>			

Appendix B: Survey Details

Details of the foraging goose surveys and intertidal surveys are provided in Table B1 and Table B2. All surveys were completed by RPS.

Table B1: Details of September 2023 – May 2024 foraging goose surveys

Month and visit number	Date	Surveyor	Start time	End time	Duration (hrs)	Wind speed*	Wind direction	Rain	Cloud cover (in eights)	Cloud height	Visibility
Sept. visit 1	26/09/2023	RS & PB	10:30	14:30	4	4	S - N	0	6	-	3
	27/09/2023	RS & PB	09:30	15:30	6	2	S - N	0	7	-	4
	28/09/2023	RS & PB	09:00	12:00	3	5	SW - NE	0	8	-	3
	29/09/2023	RS & PB	09:00	12:00	3	5	SW - NE	0	6	-	4
Oct., visit 1	10/10/2023	RS & PB	15:00	18:00	3	3	NE	0	7	-	4
	11/10/2023	RS & PB	11:00	17:00	6	3	E	0	2	-	4
	12/10/2023	RS & PB	09:00	12:00	3	2	NE	0	2	-	4
	13/10/2023	RS & PB	10:30	13:30	3	2	NE	0	2	-	4
Oct., visit 2	25/10/2023	RS & PB	10:00	17:00	7	4	W	1	8	-	3
	26/10/2023	RS & PB	09:00	17:00	7	1	W	1	8	-	2
	27/10/2023	RS & PB	09:00	12:30	3.30	4	W	0	8	-	4
Nov., visit 1	08/11/2023	RS & PB	09:00	16:00	7	3-6	N - NE	0	8	2	2
	09/11/2023	RS & PB	09:00	12:00	3	2	NE	0	2	2	2
Nov., visit 2	27/11/2023	RS & PB	13:00	16:00	3	4	SW	2	8	1	2
	28/11/2023	RS & PB	09:00	12:00	3	3	SE	0	7	1	2
	29/11/2023	RS & PB	09:00	11:30	2:30	3	SE	1	8	1	1
Dec., visit 1	12/12/2023	RS & PB	13:45	16:00	2:15	4	SW	2	8	1	2
	13/12/2023	RS & PB	09:00	12:00	3	2	SW	2	8	2	2
	14/12/2023	RS & PB	09:00	12:00	3	3	NE	0	2	2	2

Month and visit number	Date	Surveyor	Start time	End time	Duration (hrs)	Wind speed*	Wind direction	Rain	Cloud cover (in eights)	Cloud height	Visibility
Dec., visit 2	18/12/2023	RS & PB	12:45	15:30	2:45	4	NE	0	7	2	2
	19/12/2023	RS & PB	09:00	13:00	4	4	NE	0	2	2	2
	20/12/2023	RS & PB	09:00	11:45	2:45	2	NE	2	8	2	1
Jan., visit 1	23/01/2024	RS & RW	14:30	16:00	2:30	6	NE	1	8	1	0
	24/01/2024	RS & RW	09:00	11:30	2:30	5	E	0	1	2	2
Jan., visit 2	29/01/2024	RS & RW	14:00	16:00	2	2	SW	0	8	2	2
	30/01/2024	RS & RW	14:00	16:30	2:30	3	NE	0	2	2	2
	31/01/2024	RS & RW	09:00	12:00	3	6	NE	0	8	2	2
Feb., visit 1	07/02/2024	RS & RW	15:00	17:00	2	3	SE	0	0	2	2
	08/02/2024	RS & RW	14:30	17:00	2:30	3	W	0	7	2	2
	09/02/2024	RS & RW	09:00	12:00	3	6	W	2	8	1	1
Feb., visit 2	26/02/2024	RS & RW	13:30	16:30	3	3	S	0	1	2	2
	27/02/2024	RS & RW	13:00	16:00	3	4	NE	0	2	2	2
	28/02/2024	RS & RW	09:00	12:00	3	4	N	1	7	2	2
Mar., visit 1	07/03/2024	RS & RW	13:00	17:00	4	4	NW	0	8	2	2
	08/03/2024	RS & RW	09:00	11:00	2	4	W	0	8	2	2
Mar., visit 2	25/03/2024	RS & RW	14:00	17:00	3	3	W	2	8	1	2
	26/03/2024	RS & RW	13:00	17:00	4	4	SW	0	3	2	2
	27/03/2024	RS & RW	08:00	11:00	3	4	SW	3	8	0	1
Apr., visit 1	03/04/2024	RS	13:30	17:00	3:30	4	SW	2	8	0	1
	04/04/2024	RS	09:00	17:00	8	4	S - SW	0	8	2	2
	05/04/2024	RS	09:00	12:30	3:30	4	W	1	8	0	0
Apr., visit 2	22/04/2024	RS	15:30	17:00	1:30	4	S	0	8	2	2

Month and visit number	Date	Surveyor	Start time	End time	Duration (hrs)	Wind speed*	Wind direction	Rain	Cloud cover (in eights)	Cloud height	Visibility
	23/04/2024	RS	09:00	17:00	8	4	SE - S	0	8	2	2
	24/04/2024	RS	09:00	13:00	1	4	SE - S	0	7	2	2
May, visit 1	01/05/2024	RS	16:00	18:00	2	3	SW	1	8	1	1
	02/05/2024	RS	09:00	17:00	8	3	SW	0	0	2	2
	03/05/2024	RS	09:00	12:30	3:30	4	SW	0	4	2	2

Key:

Surveyor: PB = Patrick Beaumont; RS = Rio Stirling; RW = Rachael Ward

Wind speed (according to Beaufort scale): Calm 0, Light air 1, Light breeze 2, Gentle breeze 3, Mod. breeze 4, Fresh breeze 5, Strong breeze 6, Mod. gale 7, Fresh gale 8, Strong gale 9, Whole gale 10, Storm 11, Hurricane 12.

Wind direction: according to 16-point compass;

Rain: 0 = None, 1 = Drizzle/Mist, 2 = Light showers, 3 = Heavy showers, 4 = Heavy rain; **Cloud cover:** in eighths of sky (oktas); **Cloud height:** 0 = <150 m, 1 = 150-500m, 2 = >500 m, - = Not Recorded; **Visibility:** 0 = Poor (<1 km), 1 = Moderate (1 - 3 km), 2 = Good (>3 km)

Table B2: Details of September 2023 – March 2024 intertidal surveys

Month	Date	Surveyor	Start time	End time	Hour	Wind Speed	Wind direction	Rain	Cloud cover	Visibility	Tidal Cycle
September	26/09/2023	RS & PB	17:00	19:00	1	4	S - N	0	2	4	Low
					2	3	SW - NE	0	2	4	Low
	28/09/2023	RS & PB	13:00	16:30	1	5	S - N	0	8	3	High
					2	5	S - N	0	8	3	High
					3	5	S - N	0	8	3	High
				4	5	S - N	0	8	3	High	
October	12/10/2024	RS & PB	12:30	15:30	1	3	NE	0	1	4	High
					2	3	NE	0	3	4	High
					3	3	NE	0	6	4	High
	24/10/2023	RS & PB	15:00	17:30	1	2	SW	0	5	4	Low
					2	3	SW	0	4	4	Low
					3	3	S	0	4	4	Low
November	07/11/2023	RS & PB	14:00	16:30	1	3	SE	0	7	4	Low
					2	2	SE	0	7	4	Low
					3	2	SE	0	6	4	Low
	28/11/2023	RS & PB	13:00	15:00	1	3	SE	0	3	4	High
					2	3	SE	0	3	4	High
					3	3	SE	0	3	4	High
December	13/12/2023	RS & PB	13:00	15:00	1	2	SW	0	6	4	Low
					2	2	SW	0	6	4	High
	19/12/2023	RS & PB	11:30	13:30	1	2	NE	0	1	4	Low
					2	2	NE	0	1	4	Low
January	24/01/2024	RS & RW	12:00	14:30	1	4	E	0	4	4	Low

Month	Date	Surveyor	Start time	End time	Hour	Wind Speed	Wind direction	Rain	Cloud cover	Visibility	Tidal Cycle
	30/01/2024	RS & RW	09:30	12:30	2	4	E	0	5	4	High
					3	4	E	0	5	4	High
					1	1	E	0	0	4	Low
					2	1	NE	0	0	4	Low
					3	1	NE	0	0	4	Low
February	08/02/2024	RS & RW	11:00	14:00	1	2	S	0	4	4	High
					2	3	SW	0	6	4	High
					3	3	W	0	7	4	High
	27/02/2024	RS & RW	08:00	11:00	1	2	NE	0	8	4	Low
					2	2	NE	1	6	4	Low
					3	2	NE	0	4	4	Low
March	08/03/2024	RS & RW	11:30	14:00	1	2	W	0	8	4	High
					2	2	W	0	7	4	High
					3	2	W	0	7	4	Low
	26/03/2024	RS & RW	08:00	11:00	1	2	SW	0	5	4	Low
	26/03/2024	RS & RW	08:00	11:00	2	2	SW	1	6	4	Low
	26/03/2024	RS & RW	08:00	11:00	3	2	SW	1	8	3	Low

Key:

Surveyor: PB = Patrick Beaumont; RS = Rio Stirling; RW = Rachael Ward

Wind speed (according to Beaufort scale): Calm 0, Light air 1, Light breeze 2, Gentle breeze 3, Mod. breeze 4, Fresh breeze 5, Strong breeze 6, Mod. gale 7, Fresh gale 8, Strong gale 9, Whole gale 10, Storm 11, Hurricane 12.

Wind direction: according to 16-point compass;

Rain: 0 = None, 1 = Drizzle/Mist, 2 = Light showers, 3 = Heavy showers, 4 = Heavy rain; **Cloud cover:** in eighths of sky (oktas); **Cloud height:** 0 = <150 m, 1 = 150-500m, 2 = >500 m, - = Not Recorded; **Visibility:** 0 = Poor (<1 km), 1 = Moderate (1 - 3 km), 2 = Good (>3 km)

Appendix C: Additional Species Recorded During Foraging Goose Surveys

Table C1: Additional species recorded during the September 2023–May 2024 foraging goose surveys

Species	Max Count During Site Visits - 1 and 2															
	Sep	Oct 1	Oct 2	Nov 1	Nov 2	Dec 1	Dec 2	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	Apr 1	Apr 2	May 1
Barnacle goose		24	12													
Greylag goose													1			
Shelduck															2	
Wigeon							30									
Mallard		45	50 (also 400 seen in shoo ting area) *	3												
Teal			4													
Goosander														6		
Oystercatcher													3	1	1	2
Lapwing			140										3			

Species	Max Count During Site Visits - 1 and 2															
	Sep	Oct 1	Oct 2	Nov 1	Nov 2	Dec 1	Dec 2	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	Apr 1	Apr 2	May 1
Golden plover		64	2,000	37												
Curlew				6	72	21	75			66					70	
Turnstone						8										
Redshank				4												
Black-headed gull														2		
Great black-backed gull										2		3	1			
Herring gull					60							35	30	5		
Sparrowhawk			1													
Buzzard				3		2	2				3		3		2	2
Kestrel	1	1		1		1										
Fieldfare			60													
Unidentified goose sp.	570 (flying over)	300 (flying over)		8 (flying over)												
Unidentified gull species	350		130*	200*							10		200			

Species	Max Count During Site Visits - 1 and 2															
	Sep	Oct 1	Oct 2	Nov 1	Nov 2	Dec 1	Dec 2	Jan 1	Jan 2	Feb 1	Feb 2	Mar 1	Mar 2	Apr 1	Apr 2	May 1
Unidentified wader species (likely golden plover)		120														
Redwing/fieldfare (mixed flock)			500+													
Unidentified duck species				5							10				2	
* Mallard were observed in the "shooting area" slightly to the south west of the Onshore Export Cable Corridor 5 km buffer area.																

Appendix D: Figures

- Figure 4a: Foraging Goose Survey Results: Pink-footed Goose, September 2023
- Figure 4b: Foraging Goose Survey Results: Pink-footed Goose, October 2023
- Figure 4c: Foraging Goose Survey Results: Pink-footed Goose, November 2023
- Figure 4d: Foraging Goose Survey Results: Pink-footed Goose, December 2023
- Figure 4e: Foraging Goose Survey Results: Pink-footed Goose, January 2024
- Figure 4f: Foraging Goose Survey Results: Pink-footed Goose, February 2024
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- Figure 4h: Foraging Goose Survey Results: Pink-footed Goose, April 2024
- Figure 4i: Foraging Goose Survey Results: Pink-footed Goose, May 2024
- Figure 5a: Foraging Goose Survey Results: Other Wildfowl and Waders, September 2023
- Figure 5b: Foraging Goose Survey Results: Other Wildfowl and Waders, October 2023
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- Figure 5f: Foraging Goose Survey Results: Other Wildfowl and Waders, February 2024
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- Figure 6a: Intertidal Bird Survey Results: Wildfowl, September 2023
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- Figure 7a: Intertidal Bird Survey Results: Waders, September 2023
- Figure 7b: Intertidal Bird Survey Results: Waders, October 2023
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- Figure 8a: Intertidal Bird Survey Results: Other Non-passerines, September 2023
- Figure 8b: Intertidal Bird Survey Results: Other Non-passerines, October 2023
- Figure 8c: Intertidal Bird Survey Results: Other Non-passerines, November 2023
- Figure 8d: Intertidal Bird Survey Results: Other Non-passerines, December 2023
- Figure 8e: Intertidal Bird Survey Results: Other Non-passerines, January 2024
- Figure 8f: Intertidal Bird Survey Results: Other Non-passerines, February 2024
- Figure 8g: Intertidal Bird Survey Results: Other Non-passerines, March 2024

