Environmental Impact Assessment Report
Volume 3, Chapter 23: Appendix 23.8 Screening Rationale for assessment of Important Ecological and Ornithological Features

MarramWind Offshore Wind Farm

December 2025

MarramWind

Document code:	MAR-GEN-ENV-REP-WSP-000137
Contractor document number:	852346-WEIS-IA-I6-RP-T7-233350
Version:	Final for Submission
Date:	08/12/2025
Prepared by:	WSP UK Limited
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Contents

1. Introduction

1.1.1.1 This Appendix provides a screening rationale for the assessment of important ecological and ornithological features presented in **Volume 1, Chapter 23: Terrestrial Ecology and Ornithology**:

- describes and justifies the level of importance assigned to the ecological features identified during the data gathering exercise carried out to inform this assessment;
- provides rationale whether those ecological features require further assessment as they have either sufficient legal protection for a breach in legislation to occur or are of sufficient importance that a significant effect may occur as a result of the Project; and
- justification is provided for the decision to scope in or out each ecological feature is based on information on its status both with regard to the Project, and the local, county, regional, national or international context, where available.

1.1.1.2 This Appendix should be read in conjunction with the project description provided in **Volume 1, Chapter 4**: **Project Description** and **Volume 1, Chapter 20: Water Resources and Flood Risk** and the relevant parts of the following Chapter and the following Appendices:

- **Appendix 23.1 Ecological Desk Study**;
- **Appendix 23.2 Habitats and Vegetation Survey Report**;
- **Appendix 23.3 Protected Species Survey Report**;
- **Appendix 23.4 Breeding Bird Report 2023**;
- **Appendix 23.5 Breeding Bird Report 2024**;
- **Appendix 23.6 Winter Bird Report 2022/2023**;
- **Appendix 23.7 Winter Bird Report 2023/2024**;
- **Appendix 23.9: Habitat Loss Calculations**; and
- **Appendix 23.10 Arboricultural Impact Assessment**.

1.2 Identification of Important Ecological Features

1.2.1.1 The scope of the assessment has been established through a scoping process.

1.2.1.2 The Chartered Institute of Ecology and Environmental Management Guidelines for Ecological Impact Assessment (EcIA) state: "*For the purpose of EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in genera*l". Therefore, the assessment process does not require consideration of effects on ecological features deemed to be below a predefined nature conservation importance threshold and focuses on Important Ecological Features (IEF) - which are those that occurred within the Project's ecological Zone of Influence (ZOI) and have been evaluated to be of Local or greater importance on a predefined geographical scale.

1.2.1.3 The ecology and nature conservation (as used in **Table 1.1**) of ecological and ornithological features found within the a ZOI of the Onshore Red Line Boundary has been evaluated, as set out in **Table 1.1**. The follow-on assessment presented in **Volume 1, Chapter 23: Terrestrial Ecology and Ornithology** focuses specifically on IEFs identified within the potential ZOI of the Project, which have been scoped in (as noted in the final column of **Table 1.1**).

Table 1.1 Screening rationale for assessment of important ecological and ornithological features

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Designations and qualifying features					
Buchan Ness to Collieston Coast Special Protected Area (SPA): • Kittiwake (breeding); • Herring gull (breeding); • Guillemot (breeding); • Fulmar (breeding); • European shag (breeding); and • Seabird assemblage (breeding).	International	**Negligible**	No	Buchan Ness to Collieston Coast SPA in Aberdeenshire, Scotland, is designated for its important seabird populations and unique coastal habitats. The site, 15 kilometres (km) stretch of coastline, features diverse coastal vegetation on cliffs and cliff tops, including maritime heath, grassland, and brackish flushes. It is known for supporting significant numbers of breeding seabirds, with over 20,000 individual seabirds regularly present. The SPA is located approximately 4.3km to the southeast of the nearest Onshore Red Line Boundary. Kittiwake (*Rissa tridactyla*), guillemot (*Uria aalge*), fulmar (*Fulmarus glacialis*) and European shag (*Gulosus aristotelis*) were not recorded within onshore environment and there is no connectivity with the Project; and therefore no pathway for effect. Herring gull (*Larus argentatus*) was recorded in limited numbers within the onshore environment indicating that the site is not an important resource. Given that any disturbance would be temporary, with limited connectivity to the Project area and given the distance to the SPA, it is clear from the low numbers recorded that the herring gull population will not be affected. All species are therefore considered of **Negligible** importance in the context of the Project and are scoped out of further assessment.	Yes
Buchan Ness to Collieston Special Area of Conservation (SAC):	International	**Negligible**	No	Buchan Ness to Collieston SAC contains a variety of coastal landforms which have developed on a massive granite bedrock. The cliffs and slopes support a wide diversity of vegetation types with variable maritime influence. Exposure to the sea and wind, and in particular salt spray blown on to the cliff face and cliff top is a key determinant of the type of sea cliff vegetation. The cliff top has	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
• Annex I habitat that is the primary reason for selection of this site: Vegetated-sea cliffs of the Atlantic and Baltic coasts.				some of the best examples of heath and brackish flushes on the coast of north-east Scotland. The SAC is approximately 6km to the south of the Onshore Red Line Boundary, which means it does not overlap with, nor does it fall within a ZOI of the Project; therefore, no effects pathways have been identified.	
Loch of Strathbeg Ramsar: Ramsar criterion 1 – The largest dune slack pool in Britain, with an area of 200 hectares (ha)	International	**Negligible**	No	Loch of Strathbeg is Britain's largest dune loch and is surrounded by wetland, dunes and grassland, supporting large numbers of wintering wildfowl including geese, swans, ducks and breeding sandwich terns (*Thalasseus sandvicensis*). Loch of Strathbeg Ramsar site is approximately 5.5km to the north-east of the Onshore Red Line Boundary, which means it does not overlap with, nor does it fall within the ZOI for the Project.	Yes
Loch of Strathbeg SPA / Ramsar: Sandwich tern (breeding)	International	**Negligible**	No	Sandwich tern is a qualifying feature of the SPA / Ramsar, with a breeding population based on a 1985 to 1990 average of 280 pairs, 2% of the Great Britain (GB) population. Sandwich terns were recorded within the Project's intertidal surveys (**Appendix 12.1, Offshore and Intertidal Ornithology Baseline Report**). However, the species was not recorded within onshore environment and no connectivity between onshore work locations and Sandwich terns was identified; and therefore, no pathway for effect.	Yes
Loch of Strathbeg SPA / Ramsar: Svalbard Barnacle	International	**Negligible**	No	Svalbard barnacle goose (*Branta leucopsis*) is a qualifying feature of the SPA / Ramsar, with a non-breeding population based on a 5-year winter peak mean between 2005 / 2006 and 2009 / 2010 of 520 individuals, 1.6% of the GB population.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
goose (non-breeding)				No Svalbard barnacle geese were recorded during winter surveys in 2022 / 2023 (**Appendix 23.6**) or in 2023 / 2024 (**Appendix 23.7**) and no effect pathway has therefore been identified.	
Loch of Strathbeg SPA / Ramsar: Greylag goose (non-breeding)	International	**Negligible**	No	Greylag goose (*Anser anser*) is a qualifying feature of the SPA / Ramsar, with a non-breeding population based on a 1986 / 1987 to 1990 / 1991, average winter peak count of 5,565 individuals, 6% of the Iceland / United Kingdom (UK) / Ireland biogeographic population. A single record of 254 greylag geese was recorded during 2022 / 2023 surveys (**Appendix 23.6**) and a single record of 80 birds was made during 2023 / 2024 surveys (**Appendix 23.7**). No records were recorded within a potential ZOI of the Project based on Goodship and Furness (2022) buffer distance of 230 metres (m). The species is therefore unlikely to be affected by the onshore Project.	Yes
Loch of Strathbeg SPA / Ramsar: Pink-footed goose (non-breeding)	International	International	Yes	Pink-footed goose (*Anser brachyrhyncus*) is a qualifying feature of the SPA / Ramsar, with a non-breeding population based on a 1986 / 1987 to 1990 / 1991, average winter peak count of 27,500 individuals, 25% of the Eastern Greenland / Iceland / UK biogeographic population and 25% of the GB population. Winter geese and swan surveys in 2022 / 2023 (**Appendix 23.6**) and 2023 / 2024 (**Appendix 23.7**), recorded pink-footed geese utilising agricultural land to the south of St Fergus Gas Terminal and surrounding fields; birds were recorded throughout the winter period until late March. During the 2022 / 2023 survey season, between 297 and a peak count of 700 pink-footed geese were recorded in this area during each of November, January, February and March. The peak count recorded equates to approximately	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				2.5% of the SPA population (JNCC, 2018). During the 2023 / 2024 distribution surveys between October and March, goose flocks made heavy use of the area east of St Fergus, with a peak count of 1,150 in October 2023. These areas of agricultural land, which are regularly used by >1% of the SPA wintering population over the winter are considered functionally linked with the SPA and therefore of international importance. Given that the areas are within a potential ZOI of the Onshore Red Line Boundary based on Goodship and Furness (2022) buffer distance of 500m, this species may be affected by the Project.	
Loch of Strathbeg SPA / Ramsar: Whooper swan (non-breeding)	International	Council Area	Yes	Whooper swan (*Cygnus cygnus*) is a qualifying feature of the SPA / Ramsar, with a non-breeding population based on a 5-year winter peak between 1986 / 1987 and 1990 / 1991 of 245 individuals, 4% of the GB population. A single record of two birds feeding in fields at Scotstown was recorded during winter surveys in 2022 / 2023 (**Appendix 23.6**); and two records during surveys in 2023 / 2024 (**Appendix 23.7**), including 29 birds feeding in fields at St Fergus and 30 birds feeding in fields at Ednie. Whilst birds were recorded infrequently within the Onshore Red Line Boundary, the agricultural land south of the St Fergus Gas Terminal was used on a single occasion by 11.8% of the SPA wintering population and foraging birds over the winter are considered functionally linked with the SPA, and due to the very occasional occurrence is considered of Council area importance. Given that the areas are within a potential ZOI of the Onshore Red Line Boundary based on Goodship and Furness (2022) buffer distance of 200m, whopper swan may be affected by the Project.	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Loch of Strathbeg SPA / Ramsar: Teal (non-breeding)	International	**Negligible**	No	Teal (*Anas crecca*) is a component of waterbird assemblage (CoWA) with a non-breeding population of 1,270 individuals, 1% of the GB population. A single bird was recorded calling in farmland north of Inverugie during breeding bird surveys in 2023 (**Appendix 23.5**). No teal were recorded during winter surveys in 2022 / 2023 (**Appendix 23.6**) or in 2023 / 2024 (**Appendix 23.7**). Given the limited records, teal are unlikely to be affected by the Project.	Yes
Loch of Strathbeg SPA / Ramsar: Common goldeneye (non-breeding)	International	**Negligible**	No	Common goldeneye (*Bucephala clangula*) is a CoWA with a non-breeding population of 150 individuals, 1% of the GB population. No records of goldeneye were recorded during winter surveys in 2022 / 2023 (**Appendix 23.6**) or winter surveys in 2023 / 2024 (**Appendix 23.7**). Given the species was not recorded during the survey programme, goldeneye are unlikely to be affected by the Project.	Yes
Ythan Estuary, Sands of Forvie and Meikle Loch SPA: • Sandwich tern (breeding); • Common tern (breeding); • Little tern (breeding); • Pink-footed goose (non-breeding); • Waterbird assemblage (non-breeding);	International	**Negligible**	No	Ythan Estuary, Sands of Forvie and Meikle Loch SPA covers a complex area in the Aberdeenshire that contains the long, narrow estuary of the River Ythan, the Sands of Forvie on the east bank of the estuary; the eutrophic Meikle Loch and a marine component covering the area between Aberdeen and Cruden Bay to the north. The site is designated for breeding seabirds and wintering waterbirds, including an important goose roost at Meikle Loch. The SPA is 9.9km to the south of the Onshore Red Line Boundary at its nearest point. Pink-footed goose was recorded within the Onshore Red Line Boundary, however given the closer proximity to Loch of Strathbeg, functional connectivity is attributed to the winter population at this site, not the Ythan Estuary, Sands of Forvie and Meikle Loch SPA population. No functional connectivity is considered for all other species.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
• Eider (non-breeding); • Lapwing (non-breeding); and • Redshank (non-breeding).					
Rora Moss Site of Special Scientific Interest	National	**Negligible**	No	This designation is located approximately 4.6km north of the Onshore Red Line Boundary. The qualifying feature is active raised bog and was assessed to be in unfavourable with no change, when assessed 21 June 2012. There are no predicted impact pathways resulting from the Project.	Yes
Rattrayhead to Peterhead Local Nature Conservation Site (LNCS): Wintering bird assemblage	Council Area.	Council Area.	Yes	The Rattray Head to Peterhead LNCS comprises a variety of coastal habitats including sand dunes, which support a diversity of plant species including several species that are rare in North East Scotland. The St Fergus landfall overlaps the LNCS within the Annachie Burn / South Scotstown area, where adjacent fields are important for roosting and feeding geese, waders and wildfowl. Agricultural fields adjacent to the coastline are important for roosting and foraging geese, waders and wildfowl. Winter geese and swan surveys undertaken in 2022 / 2023 (**Appendix 23.6**) and 2023 / 2024 (**Appendix 23.7**) confirmed the presence of the following species: curlew (*Numenius arquata*), lapwing (*Vanellus vanellus*), golden plover (*Pluvialis apricaria*), snipe (*Gallinago gallinago*), redshank (*Tringa totanus*), oystercatcher (*Haematopus ostralegus*) and jack snipe (*Lymnocryptes minimus*). During the winter 2023 / 2024 bird surveys (**Appendix 23.7**), the majority of waders were recorded between St Fergus and Scotstown Head within or around the Rattrayhead to Peterhead LNCS. These species associated with the LNCS comprise a wintering wader assemblage, of Council area importance that falls within a likely ZOI (based on a precautionary disturbance distance	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				of 500m applied to pink-footed geese (Goodship and Furness, 2022).	
Rattrayhead to Peterhead LNCS: Sand dune / grassland communities	Council Area.	Council Area.	Yes	This LNCS overlaps the Onshore Red Line Boundary at each of the coastal landfall options. The site is noted for its variety of coastal habitats including sand dune / grassland communities, which comprise the following Annex 1 and Scottish Biodiversity List (SBL) habitats: Fixed dunes; Dune grassland; Humid dune slacks; Shifting dunes; and Shifting dunes with marram. Sand dune system habitats are located at the three coastal landfall locations. Much of these sand dune habitats are characteristically mobile, such as, SD5b, SD6a and SD6e. SD5b consists of blue lyme grass (*Leymus arenarius*) and is a foredune community. SD6a and SD6e are communities of marram dune systems found between embryonic dunes to the seaward and fixed dunes to the landward. Occasional SD17 dune slack communities were recorded. Although there will be no land take from the LNCS, given the overlap of the Onshore Red Line Boundary due to the application of horizontal direction drilling (HDD), proposals could result in habitat loss, modification and disturbance to potentially sensitive dune communities.	No
Habitats					
Ancient woodland	National	Regional	Yes	In Scotland, ancient woodland is defined as land that is currently wooded and has been continually wooded, at least since 1750. One area of woodland (approximately 6.6ha) listed on the Ancient Woodland Inventory (Category 2a) is present within the Onshore Red Line Boundary, located along the northern bank of River Ugie. During the design process, the method proposed is to be trenchless for the cable to be taken under the woodland. While this approach and the inclusion of good practice protection measures, including	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				tree root protection zones, will reduce the likelihood of impacts to ancient woodland, they cannot be ruled out altogether.	
Semi-natural broadleaf woodland	Council area.	**Negligible**	No	There are two small strips of Native Woodland Survey Scotland listed woodlands (additional to ancient woodland) within the Onshore Red Line Boundary and only one of which is within a ZOI of the Project. There will be no land take from the woodland itself, although a small section of connecting treelined hedgerow within the 89m corridor may be lost. Conifer plantation woodland is more commonly present within the Onshore Red Line Boundary with smaller pockets of broadleaved plantation woodland scattered throughout, between fields, on roadsides and along watercourses. Planted coniferous woodland is of limited conservation interest. Small sections of tree lines may be subject to permanent and temporary habitat loss, which would be subject to reinstatement or replanting and are considered further within the Arboricultural Impact Assessment (**Appendix 23.10**). As such, given the **Negligible** importance of this woodland habitat in a Project context, significant effects are unlikely.	Yes
Planted coniferous woodland	Less than local.	**Negligible**	No		Yes
Planted broadleaf woodland	Less than local.	**Negligible**	No		Yes
Swamp / rich herb mire	Local	**Negligible**	No	This is a rich herb mire associated with mesotrophic soils and forms mosaics with swamp communities. The National Vegetation Classification (NVC) community is M27 and this is not rare, though it is ecologically important for its ability to support species. This community is typically found where it is protected from grazing. It can be found in both topogenous and soligenous mires and is especially typical of silted margins of slow-moving streams and soakways, the edges of flushes and damp hollows, and also of artificial habitats such as along dykes and roadside ditches and around ponds. This community was located mainly in association with swamp habitats near the South Ugie Water.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				During the design process this community was avoided with the use of trenchless methodology, and therefore there will be no land take or other impact pathway to this habitat.	
Marshy grassland / rush pasture	Local	**Negligible**	Yes	Certain types of marshy grassland are a SBL Priority habitat (Purple moor grass and rush pasture). The NVC MG10 is a rush pasture common throughout Scotland on circum-neutral damp ground, variable in species diversity and botanical value. MG10 recorded within the Onshore Red Line Boundary is broadly associated with poorly drained permanent pastures. MG10 is classified as potentially groundwater dependant, depending on the hydrogeological setting, and may therefore be sensitive to damage during construction works within a 250m ZOI. However, based on the assessment provided in **Appendix 20.1 Detailed Hydrological and Hydrogeological Baseline Report**, no marshy grassland communities within the Onshore Red Line Boundary were identified as actually being groundwater dependent. Any potential temporary changes to the local hydrology regime may cause some change in the composition of vegetation, but this would not have a significant effect on the conservation status of these communities.	Yes
Semi-improved grassland	Local	**Negligible**	Yes	Semi-improved grassland with greater species richness was recorded within the Onshore Red Line Boundary within the landfall locations associated with the sand dunes and other scattered field parcels; however, the design sought to avoid areas of greater species richness. Impacts (both permanent and temporary) to these habitats will be limited.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Improved and Poor semi-improved grassland	Less than local	**Negligible**	Yes	These habitats are not included within the SBL and are not classified as a groundwater dependent terrestrial ecosystem. These grasslands comprise primarily improved cattle and sheep grazed pastures subject to agricultural improvement. Within the Onshore Red Line Boundary, these agriculturally improved grasslands are present across large extents. There will be habitat loss, both permanent and temporary, with some potential change in the composition of vegetation. However, this habitat is common in lowland settings throughout Scotland and composed of very common species, usually regarded as of limited botanical value.	Yes
Dense and scattered scrub and species-poor hedgerows with and without treelines	n/a	**Negligible**	Yes	Dense and scattered scrub and species-poor hedgerows (both intact and defunct) with and without treelines are present along field boundaries within the Onshore Red Line Boundary. Vegetation will be retained where possible and mapped via a Vegetation Retention Plan or similar. Otherwise, vegetation removal will be undertaken in line with British Standard (BS) 5837-2012 (Trees in relation to design, demolition and construction) (British Standards Institution, 2012) and scheduled to avoid bird breeding seasons. Hedgerows with trees / tree lines which are crossed by the onshore export cable route will be notched to reduce impacts. All hedgerows that are to be retained, coppiced, notched or lost are to be mapped. Vegetation may be coppiced / pruned to allow access and visibility splays at junctions. **Volume 4: Outline Landscape Maintenance Plan** has been developed to reinstate features including treelines and hedgerows which require removal because of construction, including construction / HDD compounds and construction access.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Birds					
Curlew (breeding)	National	Local	Yes	Curlew is listed on the SBL and is a Red listed Birds of Conservation Concern (BoCC) species. The UK population was estimated to be 58,500 breeding pairs in 2009 (Woodward *et al.*, 2020) and Natural Heritage Zone (NHZ) 9 supports an estimated 1,037 breeding pairs of curlew (Wilson *et al.*, 2015). During 2023 breeding season surveys (**Appendix 23.4**), no breeding territories were recorded, although 12 birds were recorded at St Fergus in April 2023 and occasional flights recorded on Western and South Transects and near Inverugie. During 2024 breeding season surveys (**Appendix 23.5**), two possible territories were recorded within the survey area, including a peak of 27 birds on the South East land parcel Transect in April 2024. Birds were frequently recorded throughout the survey area in May and June 2024. Over both survey seasons a single territory was recorded within a ZOI of the Onshore Red Line Boundary, based on the suggested disturbance distance of 300m for this species (Goodship and Furness, 2022). This comprises approximately 0.1% of the estimated NHZ regional breeding population. It is anticipated that there will be no likely significant effects on this species from the Project based on the low number of breeding pairs recorded during breeding bird surveys and the low percentage of the regional NHZ population present within the survey area. Whilst the Project may result in disturbance and / or displacement during construction, given the availability of suitable farmland within the immediate and wider vicinity of the Onshore Red Line Boundary, this would not affect the regional conservation interest of the species given the low number of birds potentially affected. As such, this feature is scoped out of further assessment.	Yes
Lapwing (breeding)	Regional	Local	Yes	Lapwing is a Red listed BoCC species with an estimated UK population of 97,500 breeding pairs in 2016 (Woodward *et al.*,	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				2020). During 2023 breeding season surveys (**Appendix 23.4**), two breeding territories were recorded within the survey area, with occasional flights recorded in west of survey area, with four in fields east of St Fergus in April (displaying) and May 2023. During 2024 breeding season surveys (**Appendix 23.5**), a single bird was recorded in a field on the land parcel south of Longside Airfield Transect in June 2024. Over both survey seasons two breeding territories were recorded within a ZOI of the Project, disturbance distance of 108m for this species (Hötker *et al*., 2006). The species is considered of local importance in the context of the Project during the breeding season. Whilst the Project may result in temporary disturbance and / or displacement during construction, given the availability of suitable farmland within the immediate and wider vicinity of the Onshore Red Line Boundary, this would not affect the regional conservation interest of the species given the low number of birds potentially affected. As such, this feature is scoped out of further assessment.	
Oystercatcher (breeding)	Local	**Negligible**	No	Oystercatcher is an Amber listed BoCC species with an estimated UK population of 95,500 breeding pairs in 2016 (Woodward *et al*., 2020). During the 2023 breeding season surveys (**Appendix 23.4**), a single territory was recorded within the Lunderton area, with sporadic but widespread sightings across the survey area. During the 2024 breeding season surveys (**Appendix 23.5**), no breeding records were made, with only sporadic sightings within the survey area. No breeding birds were recorded within a ZOI of the Onshore Red Line Boundary, based on the suggested disturbance distance of 100m for this species (Goodship and Furness, 2022).	Yes
Snipe (breeding)	National	**Negligible**	No	Breeding snipe is listed on the SBL and is an Amber listed BoCC species. The UK population was estimated to be 66,500 breeding	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				pairs in 2016 (Woodward *et al*., 2020) and NHZ9 supports an estimated 220 breeding pairs of snipe (Wilson *et al*., 2015). During breeding season surveys in 2023 (**Appendix 23.4**), no evidence of breeding was recorded, although five to six birds were recorded on the West Transect on 13 April 2023. During breeding season surveys in 2024 (**Appendix 23.5**), no evidence of breeding was recorded, although a single bird was recorded on Tortorston Road Transect on 19 June 2024. No breeding birds were recorded within a ZOI of the Project boundary, based on a disturbance distance of 400m for this species (Pearce-Higgins *et al.,* 2012). As such, this feature is scoped out of further assessment.	
Whimbrel (breeding)	National	**Negligible**	No	Breeding whimbrel (*Numenius phaeopus*) is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), the SBL, and is a Red listed BoCC species. The UK population is estimated to be 400-500 pairs (Musgrove *et al*., 2013), with NHZ9 reported to support no breeding pairs of whimbrel (Wilson *et al.,* 2015). During the breeding season surveys in 2023 (**Appendix 23.4**), a single bird was recorded at Scotstown Head and four adjacent to Peterhead Golf Course on 26 April 2023. One in flight and two on beach adjacent to Peterhead Golf Course on 5 May 2023. These birds were considered to be passage birds. During breeding season surveys in 2024 (**Appendix 23.5**), no records were taken. No breeding birds were recorded within or around the Onshore Red Line Boundary.	Yes
Quail (breeding)	National	Local	No	Breeding quail (*Coturnix coturnix*) is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is a BoCC5 Amber List species. The UK breeding population is estimated to be 355 pairs (Musgrove *et al*., 2013). Quail are uncommon summer visitors and scarce passage migrants to the north-east.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				During the 2023 breeding season surveys (**Appendix 23.4**), no records were made. During the 2024 breeding season surveys (**Appendix 23.5**), two registrations of the same bird were recorded within 50m of each other on Ugie Transect on13 June 2023. Given the sporadic nature of migratory breeding birds within north-east, the species is unlikely to be affected by the Project.	
Black-headed gull (breeding)	Local	**Negligible**	No	Breeding black headed gull (*Chroicocephalus ridibunus*) is an SBL and BoCC5 Amber Listed species. During 2023 breeding season surveys (**Appendix 23.4**), no territories were recorded. However, four single birds were recorded on Formartine and Buchan Way, Western and Ugie Transects in April 2023. Two potential pairs Formartine and Buchan Way and West Transects in April 2023 but not seen subsequently. Flocks of six and seven, plus a single bird in flight, near Peterhead Golf Course in May 2023. During 2024 breeding season surveys (**Appendix 23.5**) no breeding records were made. No breeding birds were recorded within or around the Onshore Red Line Boundary. Although the Project may result in low level disturbance to non-breeding birds during construction, this would not affect the regional conservation interest of the species.	Yes
Common gull (breeding)	Regional	**Negligible**	No	Common gull (*Larus canus*) is a Red listed BoCC species following the latest status assessment of breeding seabird species in the UK (Stanbury *et al*., 2024). The estimated UK population was 48,500 breeding pairs between 1998 and 2002 (Woodward *et al*., 2020). During 2023 breeding season surveys (**Appendix 23.4**), no evidence of breeding was recorded within the survey area, although up to 20 near Lunderton, nine south of Thunderton, and five flying east of Inverugie on 12 April 2023. Flocks of eight on Ugie Transect and at Lunderton in June 2023. One bird at Scotstown Head in	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				June 2023. During 2024 breeding season surveys (**Appendix 23.5**), no evidence of breeding was recorded, although birds were recorded with frequency across survey area with flocks of up to 133 in fields on Tortorston Road Transect on 01 May 2024. No breeding birds were recorded within or around the Onshore Red Line Boundary. Although the Project may result in low level disturbance to non-breeding birds during construction, this would not affect the regional conservation interest of the species.	
Herring gull (breeding)	Regional	**Negligible**	No	Herring gull is listed on the SBL and is a Red listed BoCC species with an estimated UK population of 130,000 breeding pairs between 1998 and 2002 (Woodward *et al*., 2020). NHZ9 supports an estimated 7,136 breeding pairs of herring gull (Wilson *et al*., 2015). During 2023 breeding season surveys (**Appendix 23.4**), evidence of breeding was recorded along coast, with a peak count of 52 birds north of Peterhead. During 2024 breeding season surveys (**Appendix 23.5**), birds were recorded sporadically throughout the survey area and frequently in large numbers close to North Sea. No breeding birds were recorded within or around the Onshore Red Line Boundary. Although the Project may result in low level disturbance to non-breeding birds during construction, this would not affect the regional conservation interest of the species.	Yes
Lesser black-backed gull (breeding)	Regional	**Negligible**	No	Lesser black-backed gull (*Larus fuscus*) is an Amber listed BoCC species with an estimated UK population of 110,000 breeding pairs between 1998 and 2002 (Woodward *et al*., 2020). NHZ9 supports an estimated 28 breeding pairs of lesser black-backed gull (Wilson *et al*., 2015). During 2023 breeding season surveys (**Appendix 23.4**), a single breeding territory was recorded within the survey area. Four individual records on North East, North West and South Transects were obtained in April and May 2023. Two birds were recorded at	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				Ugie mouth on 12 April 2023. During the 2024 breeding season surveys (**Appendix 23.5**), there were no recorded breeding territories, with a single bird in flight on Tortorston Road Transect, one individual at Sandford Bay, and three loafing on island off Buchan Ness in May 2024. No breeding birds were recorded within or around the Onshore Red Line Boundary. Although the Project may result in low level disturbance to non-breeding birds during construction, this would not affect the regional conservation interest of the species.	
Great black-backed gull (breeding)	Regional	**Negligible**	No	Greater black-backed gull (*Larus marinus*) is a Red listed BoCC species following the latest status assessment of breeding seabird species in the UK (Stanbury *et al*., 2024). The estimated UK population was 15,000 breeding pairs (between 7,200-19,000) in 2015 (Woodward *et al*., 2020). NHZ9 supports an estimated 99 breeding pairs of greater black-backed gull (Wilson *et al*., 2015). During 2023 breeding season surveys (**Appendix 23.4**), no breeding evidence was recorded with occasional records made of birds in flight primarily along the coastline. During 2024 breeding season surveys (**Appendix 23.5**), no breeding territories were recorded, with a single flight record over the land parcel south of Longside Airfield Transect in June 2024. No breeding birds were recorded within or around the Onshore Red Line Boundary. Although the Project may result in low level disturbance to non-breeding birds during construction, this would not affect the regional conservation interest of the species.	Yes
Mallard (breeding)	Local	**Negligible**	Yes	Mallard (*Anas platyrhyncos*) is an Amber listed BoCC species with an estimated UK population of between 61,000-145,000 breeding pairs in 2016 (Woodward *et al*., 2020). The mallard is widespread and ubiquitous throughout the UK, and the Scottish population was estimated at 17,000-43,000 pairs (Forrester *et al.,* 2007).	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				During 2023 breeding season surveys (**Appendix 23.4**), a single breeding territory was recorded within the survey area, with two birds recorded in flight in St Fergus area on 13 April 2023. Two single males on North West Transect on 14 April 2023. Three singles between Rora and Boddam in June 2023. During 2024 breeding season surveys (**Appendix 23.5**) a single bird was recorded in flight on the South East land parcel Transect and four in pool on land parcel south of Longside Airfield Transect in May 2024. One pair and one individual in flight on South East land parcel Transect, and one pair in flight on the land parcel South of Longside Airfield Transect were recorded in June 2024. Whilst the Project may result in low level disturbance during construction, given the small number of potential territories involved, this would not affect the regional conservation interest of the species.	
Teal (breeding)	Local	**Negligible**	No	Teal is an Amber listed BoCC with an estimated UK population of between 2,700-4,750 breeding pairs in 2016 (Woodward *et al.,* 2020). The Scottish breeding population was estimated to be between 1,950-3,400 pairs (Forester *et al.* 2007). During breeding season surveys in 2023 (**Appendix 25.3**), a single bird was recorded calling in farmland north of Inverugie on 14 April 2023. During the breeding season in 2024 (**Appendix 23.5**), no records were made. Although the Project may result in low level disturbance during construction, given the small number of potential territories involved, this would not affect the regional conservation interest of the species.	Yes
Goosander (breeding)	Local	Local	No	Goosander (*Mergus merganser*) is a BoCC5 Green List species with an estimated UK population of 4,800 breeding pairs in 2016 (Woodward *et al.,* 2020). The Scottish breeding population was estimated to be between 3,100-3,800 pairs (Forester *et al.,* 2007).	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				During 2023 breeding season surveys (**Appendix 23.4**), three females were recorded just west of River Ugie mouth on 18 May 2023. During 2024 breeding season surveys (**Appendix 23.5**), no records were made. Due to avoidance of proposed works near watercourse such as the River Ugie and the application of HDD, disturbance pathways are unlikely.	
Shelduck (breeding)	Local	**Negligible**	No	Shelduck (*Tadorna tadorna*) is a BoCC5 Amber List species with an estimated UK population of 7,850 breeding pairs in 2016 (Woodward *et al.,* 2020). The Scottish breeding population is estimated to be 1,750 pairs (Forester *et al.,* 2007). During breeding bird surveys in 2023 (**Appendix 23.3**), a single breeding territory was recorded on West Transect on 5 May 2023, plus four flights of pairs (mostly to / from ground) on North East and Ugie Transects. During 2024 breeding season surveys (**Appendix 23.5**), no records were obtained. No breeding birds were recorded within a ZOI of the Onshore Red Line Boundary, based on the suggested disturbance distance of 400m for this species (Goodship and Furness 2022).	Yes
Greylag goose (breeding)	Local	**Negligible**	No	Greylag goose is not listed under any conservation designation as a breeding species in the UK. The UK population was estimated to be 47,000 breeding pairs in 2017 (Woodward *et al*., 2020), of which at least at least 25,000 comprise a Scottish population of native / naturalised birds present all year round (Forrester *et al*., 2012). During 2023 breeding season surveys (**Appendix 23.4**), no evidence of breeding was recorded. Two birds were present west of Boddam in April 2023 and three birds in flight south of Peterhead on 31 May 2023. During 2024 breeding season surveys (**Appendix 23.5**), no records were recorded.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Mute swan (breeding)	Local	**Negligible**	Yes	Mute swan (*Cygnus olor*) is a BoCC5 Green List species with an estimated UK population of 7,000 breeding pairs in 2016 (Woodward *et al.,* 2020). The Scottish breeding population is estimated to be around 6,150 pairs (Forester *et al.,* 2007). During the 2023 breeding season surveys (**Appendix 23.4**), no breeding records were made, although four birds flew over the Ugie Transect on 6 May 2023. Two mute swan were observed feeding on Ugie Transect on 17 May 2023. During the 2024 breeding season surveys (**Appendix 23.5**), no breeding was recorded within the survey area, although four birds were recorded in flight on the Inverugie Transect on 1 May 2024.	Yes
Marsh harrier (Breeding / Non-breeding)	National	**Negligible**	No	Marsh harrier (*Circus aeruginosus*) is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is a BoCC5 Amber List species with an estimated UK population of between 590-695 breeding pairs in 2016 (Woodward *et al.,* 2020). The Scottish breeding population is estimated to be <10 pairs (Challis *et al.,* 2020), 10-100 birds during spring passage and 10-40 birds during autumn passage (Forrester *et al*., 2012). There were 10-12 occupied home ranges in Scotland in 2019 which fledged 22 young (Scottish Raptor Monitoring Scheme). During breeding season surveys in 2023 (**Appendix 23.4**) no marsh harrier were observed. During breeding season surveys in 2024 (**Appendix 23.5**), a single male was recorded in flight to the north of River Ugie Transect on 16 May 2024. It is unlikely that the Project would affect this sporadic visitor.	Yes
Passerines (Songbirds)	Local	Local	Yes	Breeding songbirds recorded in the predominantly agricultural fields within the Onshore Red Line Boundary were limited. Tree sparrow (*Passer montanus*), corn bunting (*Emberiza calandra*) and skylark (*Alauda arvensis*) are SBL, BoCC5 Red List species. Meadow pipit (*Anthus pratensis*) is a BoCC Amber list species. Skylark has a UK	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				population of 1,785,000 breeding territories and the meadow pipit is 2.5 million breeding territories, and both these species are relatively common throughout Aberdeenshire. Skylark were frequent to abundant across agricultural land within the Onshore Red Line Boundary and meadow pipit were recorded frequently in open semi-natural habitats. Tree sparrow and corn bunting were only recorded occasionally. The passerine most likely to be affected by any habitat displacement would be skylark. However, the maximum number of territories likely to be displaced by the construction of the onshore substations would be low in relation to the species regional and overall populations in the UK. Given the availability of similar farmland habitat within the vicinity of the onshore substations, habitat loss is unlikely to be a limiting factor for this species. Whilst the Project may result in displacement of breeding territories, given the small number of birds involved, and the implementation of a Bird Protection Plan to safeguard breeding birds, breeding passerine populations are unlikely to be significantly affected.	
Amphibians and reptiles					
Great crested newt	International	**Negligible**	No	As a European Protected Species (EPS), great crested newts (*Triturus cristatus)* found in Scotland are fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended); and is a SBL priority species. Great crested newt is not known to be present within Aberdeenshire. In Scotland, two great crested newt populations are present, with largest numbers in southern parts of the country and a smaller, separate population further north in the Highlands (O'Brien *et al*., 2017). The nearest population is found east of Inverness, over 100km west of the Onshore Red Line Boundary.	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
Slow worm	National	Local	Yes	All reptiles' native to Scotland receive protection under the Wildlife and Countryside Act 1981 (as amended), against intentional or reckless killing, injury and trade; and are SBL priority species. Reptiles are likely to occur throughout much of the Onshore Red Line Boundary due to the presence of suitable habitat (woodland edge, tussocky grassland, stone walls). One record of common lizard (*Zootica vivipara*) was identified within 2km of the Onshore Red Line Boundary. However, the main habitat recorded is agricultural arable and modified grassland fields, which are typically regarded as low value habitat for reptiles. The largest area of semi-natural habitat providing greatest suitability for reptiles is the dune grasslands within the Rattrayhead to Peterhead LNCS, which will be avoided due to HDD. Permanent habitat loss largely comprises habitat that is generally unsuitable for reptiles, for example, arable and improved fields. Furthermore, the inclusion of good practice protection measures will ensure avoidance of any significant impacts to these species.	Yes
Common lizard	National	Local	Yes		Yes
Adder	National	Local	Yes		Yes
Mammals					
Otter	International	Local	Yes	As an EPS, otter (*Lutra lutra)* are fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended); and is a SBL priority species. Suitable habitat for otter exists within the Onshore Red Line Boundary, particularly the River Ugie, Annachie Burn, Burn of Faichfield and the Cuttie Burn and smaller unnamed burns and streams. Otter spraints were recorded along the River Ugie and Annachie Burn and records of otter were identified within 2 km of the Onshore Red Line Boundary. No recorded active or potential non-breeding holts were recorded within a potential ZOI of the Onshore Red Line Boundary. Whilst the Project will incorporate HDD to avoid impacts to watercourses and waterbodies, as well as	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				the inclusion of good practice protection measures, an EPS Licence would be required should proposed works occur within a threshold of this ZOI (for instance, within 30m of a resting site).	
Water vole	National	Local	Yes	Water vole (*Arvicola amphibius)* receives partial protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); and is a SBL priority species. Although the current UK population (132,000) is believed to have declined by 50% since 1998, and the species are in decline in both England and Wales, the Scottish population, which is largely genetically and phenotypically distinct, is in fact increasing in size, with a stable range. The species is listed on the International Union for Conservation of Nature's (IUCN) Red list and 'near threated in Scotland, but 'endangered' elsewhere in the UK. Desk study records of water vole were identified within 2km of the Onshore Red Line Boundary. Suitable habitat for water vole exists within the Onshore Red Line Boundary, particularly the River Ugie, Burn of Faichfield and the Cuttie Burn and smaller unnamed burns and streams, however no field signs were recorded during surveys. Whilst water vole populations are dynamic, with the potential for individual water voles to establish or abandon territories in relatively short spaces of time, the cable routing will pass under all watercourses via trenchless methodology and no impacts are anticipated on the water vole and their habitat. There will be no loss of potential water vole habitat and pollution prevention plans will be embedded.	Yes
Bats	International	Local	Yes	As EPS, all bat species found in Scotland are fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended); and are SBL priority species. Suitable habitat to support roosting bats exists within the Onshore Red Line Boundary (mature broadleaved woodland). Woodland	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				edge, watercourses, hedgerows and scrub provide suitable habitat for commuting and foraging bats. Records of common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and Daubenton's bat (*Myotis dauentonii*) were identified within 2km of the Onshore Red Line Boundary. The main habitat recorded is agricultural fields (arable and modified grassland), which are typically regarded as low value habitat for foraging and roosting bats. Several conifer plantations dominated by Sitka (*Picea sitchensis*) were deemed to have low bat roost potential. A small number of trees and buildings on site have potential for bat roosts within the Onshore Red Line Boundary.	
Pine marten	National	**Negligible**	Yes	Pine marten (*Martes martes)* receives full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); and is a SBL priority species. Certain methods of killing or taking pine martens are illegal under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). In Scotland the species status is favourable and can now be found in all regions except for the Central Belt and the south-east coast. The species is listed on the IUCN Red list and 'Least Concern' in Scotland, but 'Critically Endangered' elsewhere in the mainland UK. Scotland's population is estimated at 3,700 adult pine martens, which represent approximately 99% of the known UK population. Desk study records of pine marten were identified within 2km of the Onshore Red Line Boundary. The main habitat recorded is agricultural fields (arable and modified grassland), which are typically regarded as low value habitat for pine marten. Woodland within the Onshore Red Line Boundary may serve as suitable pine marten habitat; however, no evidence of its presence was recorded.	Yes
Badger	Local	Local	Yes	Badger (*Meles meles)* and their setts are protected under the Protection of Badgers Act 1992 as amended by the Wildlife and	No

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				Natural Environment (Scotland) Act 2011. The species is at risk of persecution but is not recognised as a high conservation priority. While the badger population has increased since the 1980s thanks to the legal protection noted, they still face threats from road traffic and illegal persecution. The species is listed on the IUCN Red list as of 'Least Concern' in mainland UK. Suitable habitat for badger is present throughout much of the Onshore Red Line Boundary and presence has been confirmed by field signs, for example, footprints, hairs, latrines and setts. Records of badger were identified within 2km of the Onshore Red Line Boundary.	
Freshwater fish					
Atlantic salmon	National	Council Area	Yes	Atlantic salmon (*Salmo salar)* is protected under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 and is a SBL priority species. The River Ugie, which runs through the Onshore Red Line Boundary, supports a population of Atlantic salmon and sea trout (*Trutta trutta*), although it is categorized as being in a consistently poor state having been designated as a Grade 3 salmon region in all four survey years of the National Electrofishing Programme for Scotland (NEPS) (Jackson *et al.,* 2025). The Project will incorporate HDD and good practice protection measures to avoid impacts to watercourses; however, there is still potential for impacts from the construction, operation and decommissioning stage works.	No
Freshwater pearl mussel	National	**Negligible**	No	Freshwater pearl mussel (*Margaritifera margaritifera)* is protected under the Wildlife and Countryside Act (1981) (as amended in Scotland). It is also listed on Annexes II and V of the European Commission Habitats Directive (Council Directive 92/43/EEC) (as	Yes

Ecological / ornithological feature	Importance - legislation and policy	Importance - Project	Within potential ZOI of Project	Justification	Scoped out of assessment (yes / no)
				referenced in The Conservation (Natural Habitats, &c) Regulations, 1994 – annexes in the Habitats Directive are correct as of 31 December 2020; thereafter any changes would need to be made / agreed by the Scottish Government) and Appendix III of the Bern Convention. They are now extinct in most of the lowlands, and scarce everywhere except for a selection of Highland rivers, and a few in the southwest. Freshwater pearl mussels inhabit coarse sand and gravel beds of fast-flowing, non-calcareous streams and rivers. They are dependent on the presence of trout or salmon to complete their life cycle. Mussel larvae released by adult females in summer need to attach themselves to the gills of young trout or salmon, where they live before dropping off and settling on the riverbed the following spring. Freshwater pearl mussels are filter feeders, vulnerable to alterations to water levels and flows and impacts on water quality, including chemical pollutants entering a watercourse. The NEPS 2021 included water quality checks which identified that the River Ugie has high levels of nitrates, most likely from fertilisers and slurries (from the surrounding farmland), phosphates from fertiliser and sewage and silica washed into the river. Given the consistently poor state of the River Ugie (according to NEPS 2021), the lowland stretches of the River Ugie within a ZOI of the Project are therefore unlikely to support freshwater pearl mussel. Due to the avoidance of working near watercourses like the River Ugie (and its tributaries), and with the inclusion of good practice protection measures, impact pathways to freshwater pearl mussel (if present) are also likely to be avoided.	

2. References

British Standards Institution, (2012). *BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations*. London: British Standards Institute.

Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). [online] Available at: https://www.legislation.gov.uk/uksi/1994/2716/contents [Accessed: 4 July 2025].

F L Jackson, J Gilbey, L J B Eagle, R J Fryer and I A Malcolm, (2025). *The status of juvenile Atlantic salmon and brown trout populations in Scotland's rivers: The National Electrofishing Programme for Scotland (NEPS), 2023*. Scottish Marine and Freshwater Science Vol 16 No 1, 107p. DOI: 10.7489/12543.

Forrester, R.W., Andrews, I. J., McInerny, C. J., Murray, R. D., McGowan, R.Y., Zonfrillo, B., Betts, M.W., Jardine, D. C., and Grundy, D. S., (2007). *The Birds of Scotland*. SOC, Aberlady.

Goodship, N.M. and Furness, R.W. (MacArthur Green), (2022). *Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species*. NatureScot Research Report 1283. [online] Available at: https://www.nature.scot/doc/naturescot-research-report-1283-disturbance-distances-review-updated-literature-review-disturbance [Assessed: 7 November 2025].

Hagemeijer W.J.M. and Blair M.J. (eds), (1997). *The EBCC Atlas of European Breeding Birds: Their distribution and abundance*. T & A Poyser, London.

Hötker, H., Thomsen, K.-M. and H. Jeromin, (2006). *Impacts on biodiversity of exploitation of renewable energy sources: the example of birds and bats - facts, gaps in knowledge, demands for further research, and ornithological guidelines for the development of renewable energy exploitation*. Michael-Otto Institut im NABU, Bergenhusen.

Joint Nature Conservation Committee (JNCC), (2018). *Loch of Strathbeg Natura 2000 – Standard Data Form*. [online] Available at: https://jncc.gov.uk/jncc-assets/SPA-N2K/uk9002211.pdf [Accessed: 4 July 2025].

Mitchell, C., Hearn, R. and Stroud, D., (2012). *The merging of populations of Greylag Geese breeding in Britain. British Birds* 105: 498-505.

Musgrove, A.J., Austin, G. E., Hearn, R.D., Holt, C.A., Stroud, D.A. and Wotton, S.R., (2013). *Overwinter population estimates of British waterbirds.* British Birds 104: 364-397.

O'Brien, D. Hall, J., Miró, A., and Wilkinson, J., (2017). *Testing the validity of a commonly-used habitat suitability index at the edge of a species' range: great crested newt Triturus cristatus in Scotland.* Amphibia-Reptilia 38: 265-273.

Pearce-Higgins, J.W., Stephen, L., Douse, A. and Langston, R.H.W., (2012). *Greater impacts of wind farms on bird populations during construction than subsequent operation: results of a multi-site and multi-species analysis*. Journal of Applied Ecology 49: 386-394.

Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. [online] Available at: https://www.legislation.gov.uk/asp/2003/15/contents [Accessed: 4 July 2025].

Stanbury, A., Burns, F., Aebischer, N., Burnell, D., Baker, H., Balmer, D., Brown, A., Dunn, T., Lindley, P., Murphy, M., Noble, D., Owens, R., and Quinn L., (2024). *The status of UK's breeding seabirds: an addendum to the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 117.

UK Government Protection of Badgers Act 1992 as amended by the Wildlife and Natural Environment (Scotland) Act 2011. [online] Available at: https://www.legislation.gov.uk/ukpga/1992/51 [Accessed: 4 July 2025].

UK Government, (1981). *Wildlife and Countryside Act 1981.* (c.69). [online] Available at: https://www.legislation.gov.uk/ukpga/1981/69/schedule/9 [Accessed: 4 July 2025].

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. pp72*.

Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, S. and Noble, D., (2020). *APEP 4 - Population estimates of birds in Great Britain and the United Kingdom*. British Birds 113/3: 69–104.

3. Glossary of Terms and Abbreviations

3.1 Abbreviations

Acronym	Definition
BoCC	Birds of Conservation Concern
CoWA	component of waterbird assemblage
EcIA	Ecological Impact Assessment
EPS	European Protected Species
GB	Great Britain
HDD	Horizontal Direction Drilling
IEF	Important Ecological Features
IUCN	International Union for Conservation of Nature
LNCS	Local Nature Conservation Site
NEPS	National Electrofishing Programme for Scotland
NHZ	Natural Heritage Zone
NVC	National Vegetation Classification
SAC	Special Area of Conservation
SBL	Scottish Biodiversity List
SPA	Special Protected Area
UK	United Kingdom
ZOI	Zone of Influence

3.2 Glossary

Term	Definition
Appropriate Assessment	An assessment required by the Habitats Directive where a project (or plan) would be likely to have a significant effect on a European site, either alone or in combination with other plans or projects (part of the Habitats Regulations Assessment process).
Assemblage	A group of species found in the same location
Avoidance	Prevention of impacts occurring, having regard to predictions about potentially negative environmental effects (e.g. project decisions about site location or design).

Term	Definition
Baseline conditions	The conditions that would pertain in the absence of the proposed project at the time that the project would be constructed / operated / decommissioned. The definition of these baseline conditions should be informed by changes arising from other causes (e.g. other consented developments)
Biodiversity	The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biophysical change	Alteration in biological and/or physical conditions of the environment (e.g. changes in the atmospheric concentration of carbon dioxide, altered soil pH or change in the frequency of a plant compensation species in an area).
Compensation	Measures taken to offset the loss of, or permanent damage to, ecological features despite mitigation. Any replacement area should be similar in terms of biological features and ecological functions that have been lost or damaged, or with appropriate management have the ability to reproduce the ecological functions and conditions of those biological features. Compensation addresses negative effects which are residual, after avoidance and mitigation have been considered. It is this objective of compensation, and not its location, that distinguishes compensation from ‘mitigation’. Depending on circumstances, compensation measures may be located within or outside the project site.
Connectivity	A measure of the functional availability of the habitats needed for a particular species to move through a given area. Examples include the flight lines used by bats to travel between roosts and foraging areas or the corridors of appropriate habitat needed by some slow colonising species if they are to spread.
Conservation objective	Objective for the conservation of biodiversity (e.g. specific objective within a management plan or broad objectives of policy).
Conservation status	The state of a species or habitat including for example, extent, abundance, distribution and their trends.
Cumulative impact / effect	Additional changes caused by a proposed development in conjunction with other developments or the combined effect of a set of developments taken together.
Distribution	The geographical presence of a feature. This can depend on factors such as climate and altitude.
Ecological feature	Habitats, species or ecosystems.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Effect	Outcome to an ecological feature from an impact. For example, the effects on a dormouse population from loss of a hedgerow. See also ‘Impact’.
Enhancement	Improved management of ecological features or provision of new ecological features, resulting in a net benefit to biodiversity, which is unrelated to a negative impact or is ‘over and above’ that required to mitigate / compensate for an impact.
Fragmentation	The breaking up of a habitat, ecosystem or land-use type into smaller parcels with a consequent impairment of ecological function.
Geographic scale	The geographic context for evaluation.

Term	Definition
Habitat	The place or type of site where an organism or population naturally occurs. Often used in the wider sense referring to major assemblages of plants and animals found together.
Habitats Regulations Assessment	An assessment of projects (or plans) potentially affecting European sites in the UK, required under the Habitats Directive and Regulations.
Impact	Actions resulting in changes to an ecological feature. For example, the construction activities of a development removing a hedgerow. See also 'Effect'.
Important ecological features	Ecological features requiring specific assessment within EcIA. Ecological features can be important for a variety of reasons (e.g. quality and extent of designated sites or habitats, habitat / species rarity)
Mitigation	Measures taken to avoid or reduce negative impacts and effects. Measures may include locating the development and its working areas and access routes away from areas of high ecological interest, fencing off sensitive areas during the construction period, or timing works to avoid sensitive periods. An example of a reduction measure is a reed bed silt trap that is designed to minimise the amount of polluted water running directly into an ecologically important watercourse. Depending on circumstances, mitigation measures may be located within or outside the project site.
Population	A collection of individuals (plants or animals), all of the same species and in a defined geographical area.
Rarity	A measure of relative abundance.
Replacement	The creation of a habitat that is an acceptable substitute for the habitat which has been lost
Restoration	The re-establishment of a damaged or degraded system or habitat to a close approximation of its pre-degraded condition.
Screening report	Report containing information to determine whether an Appropriate Assessment is required.
Significant effect	An effect that either supports or undermines biodiversity conservation objectives for 'important ecological features'.
Zone of Influence	The area(s) over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities.

MarramWind