



Code: UKCAL-CWF-CON-EIA-RPT-00007-7E05

Volume 7E Proposed Development (Onshore) Appendices

Appendix 3-4 Breeding Bird Survey Report

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Code	UKCAL-CWF-CON-EIA-RPT-00007-7E05
Revision	Issued
Date	18 October 2024

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Acronyms and Abbreviations

°C	Degree Celsius
BAP	Biodiversity Action Plan
BBS	Breeding Bird Surveys
BoCC5	Birds of Conservation Concern, 5th edition
BTO	British Trust for Ornithology
CBC	Common Bird Census
CIEEM	Chartered Institute of Ecology and Environmental Management
EIAR	Environmental Impact Assessment Report
EU	European Union
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Appraisal
INNS	Invasive Non-Native Species
km	Kilometre
kV	Kilovolt
m	Metre
MLWS	Mean Low Water Springs
NERC Act	Natural Environment and Rural Communities Act 2006
NESBReC	North East Scotland Biological Records Centre
NPF4	National Planning Framework 4
ONEC	Onshore Export Cable Corridor
OnTI	Onshore Transmission Infrastructure
QI	Qualifying Interest

RLB	Red Line Boundary
RSPB	Royal Society for the Protection of Birds
SBL	Scottish Biodiversity List
SoPI	Species of Principle Importance
SPA	Special Protection Area
SPEC	Species of European Conservation Concern
SSEN-T	Scottish and Southern Electricity Networks - Transmission
SSSI	Site of Special Scientific Interest
UK	United Kingdom
WANE Act	Wildlife And Natural Environment (Scotland) Act 2011
WBS	Wintering Bird Surveys
WCA	Wildlife and Countryside Act 1981
WeBS	Wetlands Bird Survey

1 Introduction

1.1 Overview

- 1.1.1.1 This technical appendix supports Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity of the Environmental Impact Assessment Report (EIAR).
- 1.1.1.2 This technical appendix describes the Breeding Bird Surveys (BBS), comprising walked transects, carried out within the Onshore Transmission Infrastructure (OnTI) Red Line Boundary (RLB). A description of the Proposed Development (Onshore), outlining the components included within the OnTI RLB is presented in Volume 1, Chapter 4: Proposed Development Description (Onshore).
- 1.1.1.3 This technical appendix contains baseline information only, with no evaluation of potential impacts that may arise from the Proposed Development (Onshore). The assessment of potential impacts to breeding birds is provided in Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity.
- 1.1.1.4 This technical appendix is supported by the following annexes:
- Annex 1– Contains the Supporting Figures which includes an outline of OnTI RLB and transect survey locations, with British Trust for Ornithology (BTO) codes for bird species identified. This also highlights breeding bird territories of the Birds of Conservation Concern, fifth review (BoCC5) Red/Amber listed species and species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (WCA) within the survey area;
 - Annex 2– Detailed breeding status criteria obtained from Rare Breeding Birds Panel;
 - Annex 3– Target species records; and
 - Annex 4– Species results summary table.

1.2 The Proposed Development (Onshore)

- 1.2.1.1 Within the OnTI RLB, a proposed Landfall Site has been identified along with an Onshore Export Cable Corridor (ONEC) and Onshore Substation Site. The Onshore Export Cable Route (the area where the infrastructure would be located and would be required for construction activities) for the Onshore Export Cable Circuits will be up to 100 metres (m). The Onshore Export Cable Route will be defined at detailed design stage through further technical studies. At this stage, the ONEC is identified to allow for micro-siting of the Onshore Export Cable Circuits at detailed design and allow for flexibility within individual locations for differing construction methodologies such as Horizontal Directional Drilling (HDD).

1.2.1.2

The OnTI RLB encompasses:

- The Landfall Site: the area from Mean Low Water Springs (MLWS) where the Offshore Export Cable Circuits are connected to the Onshore Export Cable Circuits via HDD ducts within Transition Joint Bays (buried box-like structures which house the jointing between the Offshore and Onshore Export Cable Circuits). The Landfall Site is located at a rocky bay named Stake Ness, 1 kilometres (km) west of the village of Whitehills and approximately 5km west of Banff.
- The ONEC: where the Onshore Export Cable Circuits will be located which runs from the Landfall Site to the Onshore Substation Site. The ONEC extends approximately 37km from Stake Ness to an area in the vicinity of the existing New Deer Substation.
- The Onshore Substation Site: comprising two co-located Onshore Substations located adjacent to the existing New Deer substation.
- An Onshore Grid Connection Cable Corridor connecting the Onshore Substation to the Grid Connection Point at the existing New Deer Substation (for Phase 1).

2 Legislation, Policy and Guidance

2.1.1.1 There is a comprehensive system of legislation, both domestic and international, which aims to protect biodiversity at the landscape, habitat and species level. Much of this legislation exists within, and also independently of, the planning process.

2.1.1.2 This sections outlines the legislation, planning policy and guidelines relevant to this appendix.

2.2 Legislation

2.2.1.1 The legislation relevant to this appendix comprises:

- Nature Conservation (Scotland) Act 2004 (Scottish Parliament, 2004¹);
- Wildlife and Natural Environment (Scotland) Act 2011 (WANE) (Scottish Parliament, 2011²);
- Wildlife and Countryside Act 1981 (as amended) (United Kingdom (UK) Parliament, 1981³);
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (UK Parliament, 1994⁴) ; and
- The Conservation of Habitats and Species (Amendment) (European Union (EU) Exit) Regulations 2019 (UK Parliament, 2019⁵).

2.2.1.2 The legislative provisions for the protection of wild birds in the UK are contained primarily in Sections 1 to 7 of the Wildlife and Countryside Act 1981 (as amended)³. Under the Act, it is an offence to intentionally kill, injure or take any wild bird and no licences are available to disturb any birds in regard to development. General licences are available in respect of 'pest species' but only for certain very specific purposes, for example public health, public safety or air safety.

2.2.1.3 Species listed on Annex 1 of The Birds Directive (European Union, 2009⁶) were those for which the UK Government were required to take special measures, including through the designation of Special Protection Areas (SPAs) to ensure the survival and reproduction of these species throughout their area of distribution. The Birds Directive was transposed into UK and Scottish law through the Wildlife and Countryside Act³, the Nature Conservation (Scotland) Act¹ and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)⁴.

2.2.1.4 The Scottish Biodiversity List (SBL) is a list of animals, plants and habitats that Scottish Ministers consider to be of principle importance for biodiversity conservation in Scotland. The SBL contains 105 bird species. The SBL was created as part of the Nature Conservation (Scotland) Act¹, and includes species and sub-species endemic to Scotland, species on the UK Biodiversity Action Plan (BAP) and its successor programme, the UK Post-2010 Biodiversity Framework⁷. In total, the UK BAP contains 59 bird species across the UK.

2.2.1.5 As part of the Nature Conservation (Scotland) Act¹ and the WANE Act², all public bodies in Scotland must commit to upholding a Biodiversity Duty when carrying out their responsibilities, and must report on their compliance to this duty annually (NatureScot, 2023⁸). Complying with the Biodiversity Duty can include Invasive and Non-Native Species (INNS) control, habitat maintenance, and community engagement. Any actions must be listed in a Biodiversity Duty Report to fulfil the requirements.

2.3 Planning Policy

2.3.1.1 The planning policy relevant to this appendix comprises:

- Aberdeenshire Council Local Development Plan (Aberdeenshire Council, 2023⁹);
- National Planning Framework 4 (NPF4) (Scottish Government, 2023¹⁰);
- Scottish Biodiversity Strategy (2023 draft) (Scottish Government, 2022¹¹);
- Scottish Biodiversity List (NatureScot, 2020¹²); and
- UK Biodiversity Action Plan (Joint Nature Conservation Committee, 2007¹³).

2.4 Guidance

2.4.1.1 The guidance relevant to this appendix comprises:

- Birds of Conservation Concern, fifth review (BoCC5) (Stanbury et al, 2021¹⁴);
- Recommended bird survey methods to inform impact assessment of onshore wind farms (NatureScot, 2017¹⁵);
- Standing Advice for Planning Consultations - Birds (NatureScot, 2022¹⁶); and
- Assessing Connectivity with Special Protection Areas (SPAs): Guidance (NatureScot, 2016¹⁷).

2.4.2 Birds of Conservation Concern

2.4.2.1 The BoCC¹⁴ has been updated and thus a more detailed description on the BoCC5 has been provided.

2.4.2.2 The BoCC¹⁴ lists are based on an assessment of the conservation status of all regularly occurring British birds. The Red, Amber, and Green lists indicate the level of conservation importance for each species. This measure is derived from quantitative assessments from standardised criteria. The assessment is based on the most up-to-date evidence available and consider the historical decline, trends in population and range, rarity, localised distribution and international importance.

2.4.2.3 The lists are compiled by leading UK bird conservation organisations, including the Royal Society for the Protection of Birds (RSPB) and BTO. The criteria for birds being included in the lists are as follows:

2.4.2.4 Red List:

- Globally threatened;
- Historical population decline in UK during 1800–1995; and
- Severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969). Severe (at least 50%) contraction of UK breeding range over last 25 years, or the longer-term period.

2.4.2.5 Amber List:

- Species with unfavourable conservation status in Europe (Species of European Conservation Concern (SPEC));
- Historical population decline during 1800–1995 but recovering; population size has more than doubled over last 25 years;
- Moderate (25-49%) decline in UK breeding population over last 25 years, or the longer-term period;
- Moderate (25-49%) contraction of UK breeding range over last 25 years, or the longer-term period;
- Moderate (25-49%) decline in UK non-breeding population over last 25 years, or the longer-term period;
- Rare breeder; 1–300 breeding pairs in UK;
- Rare non-breeders; less than 900 individuals;
- Localised; at least 50% of UK breeding or non-breeding population in ten or fewer sites, but not applied to rare breeders or non-breeders; and
- Internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively).

2.4.2.6

Green list:

- Species that occur regularly in the UK but do not qualify under any of the above criteria.

2.4.2.7

The lists are a useful tool when evaluating the conservation significance of differing bird assemblages and are used to assess the potential significance of impacts of proposed developments and for informing types and locations of mitigation with respect to birds.

3 Methodology

3.1 Desk Study

3.1.1.1 A desk study was undertaken to identify any existing ecological information pertaining to breeding birds within the OnTI RLB and a 500m buffer.

3.1.1.2 Biological records covering an earlier design iteration of the OnTI RLB and 500m were requested from the North East Scotland Biological Records Centre (NESBReC) in February 2023.

3.1.1.3 In addition, data was also reviewed from the following sources:

- Information on European Designated Sites available on the NatureScot SiteLink website (NatureScot, 2024¹⁸), which provides information on the natural environment within Scotland, overlaid onto an interactive map;
- Wetland Bird Survey (WeBS) data obtained from BTO that covered historical records of bird species found in sections along the OnTI RLB¹⁹:
 - Boyndie Bay (2017 to 2021);
 - Deveron Estuary (2016 to 2021);
 - Fedderate Reservoir (2017 to 2022);
 - River Deveron- Banff to Bridge of Alvah (2021 to 2022); and
 - Strathmarchin Bay (2021).
- Field survey data collected as part of other assessments of the Proposed Development (Onshore) was undertaken. This included:
 - Proposed Development (Onshore) Habitats Regulations Appraisal (HRA) Screening (Application Document 10); and
 - The Extended Phase 1 Habitat Surveys completed from May 2023 to October 2023 undertaken to support the EIAR, refer to Volume 5 Chapter 3: Terrestrial Ecology and Biodiversity.

3.2 Stakeholder Consultation

3.2.1.1 Consultation was undertaken with NatureScot regarding the methodology of this technical appendix. The data and results of these stakeholder discussions are provided in Section 4.2.

3.3 Field Surveys

- 3.3.1.1 A review of relevant research and results of nearby developments was undertaken to inform the field survey methodology (Section 3.1). The methodology was also informed by the following information:
- Mapping the distribution of pink-footed geese (*Anser brachyrhynchus*) and greylag geese (*Anser anser*) in Scotland (Mitchell C., 2012²⁰); and
 - The Common Bird Census (CBC) methodology (Gilbert et al, 1998²¹ and Bibby et al., 2000²²);
- 3.3.1.2 It was determined that walked transects would be required to cover the varied habitats within the OnTI RLB. The nine transects covered over 60% of the OnTI RLB, providing adequate coverage of the habitat types within the OnTI RLB, particularly habitat mosaics. This methodology was discussed and agreed with NatureScot (Section 4.2).
- 3.3.1.3 The surveys were designed to identify notable breeding bird assemblages (Schedule 1 WCA, BoCC5, or SBL) present within the OnTI RLB and directly adjacent fields as well as establish if any habitats within the survey area could be considered to be functionally linked land to the Moray Firth SPA due to the presence of Qualifying Interests (QIs) of the SPA (Section 4.1.1).
- 3.3.1.4 Data was collected in the field using electronic handheld devices and the Field Maps ArcGIS collector app. Dedicated maps were created for each species type.
- 3.3.1.5 The data collected comprised:
- Survey start and finish times;
 - Weather conditions;
 - Transect locations;
 - Bird species;
 - Flock size;
 - Activity (including feeding, loafing, roosting and in flight);
 - Bird sex; and
 - Age.
- 3.3.1.6 Standard BTO species codes and activity symbols (BTO, 2024²³) were used in the collection of the field survey data.

3.3.1.7 Abundance and peak counts were recorded for target species. Bird species were considered to be target species if they met at least one of the following criteria:

- Moray Firth SPA citation species;
- Species listed on Schedule 1 of the Wildlife and Countryside Act;
- BoCC5 Red and Amber species; or
- SBL species.

3.3.2 Transect Surveys

3.3.2.1 Transect surveys were carried out along nine transect routes once a month between April and August 2024 inclusive in pre-determined sections of the OnTI RLB.

3.3.2.2 Dedicated walking transects were undertaken in nine areas, referred to as Transect 1 to Transect 9 (Annex 1 of this Appendix 3-4). The surveyors followed hedgerows, field margins (to avoid walking over and damaging crops), and public rights of way where possible, whilst ensuring a comprehensive survey coverage within the OnTI RLB.

3.3.2.3 Transect routes walked and approximate distances are listed below and mapped in Annex 1:

- Transect 1: Covered the Landfall Site and coastline running south to the A98 to reach Burn of Boyndie (3.6km);
- Transect 2: North and south of the A97 (1.9km);
- Transect 3: North of the River Deveron (840m);
- Transect 4: Southeast of the River Deveron (1km);
- Transect 5: Just north of Plaidy at approximately NJ 71333 56323 to the A947 (3.5km);
- Transect 6: North of Muiryfield at approximately NJ 76007 52386 to NJ 78096 49280 (2.6km);
- Transect 7: West of Howe of Teuchar at NJ 78696 48317 to NJ 78832 46809 (1.8km);
- Transect 8: Small transect outside of OnTI RLB. Covers Burn of Balquholly NJ 78585 46179 to NJ 79158 46053 (600m); and
- Transect 9: NJ 79884 45324 to the end of the Onshore Export Cable Route at approximately NJ 83148 45304 near Burnside (3.5km).

3.3.2.4 Surveyors observed birds by sight and sound, using binoculars as necessary, walking along the transect at a slow and steady pace, with the starting points and direction reversed on alternate visits to reduce potential temporal bias. The positions of the recorded birds were plotted as accurately as possible (to the nearest 10 to 20m) on digitised maps.

- 3.3.2.5 Observations of birds located adjacent to the transect were also recorded to ensure that any such species in proximity to the Landfall Site, Onshore Substation Site and the OnTI RLB were considered.
- 3.3.2.6 All common 'non target' or secondary species, for example robin (*Erithacus rubecula*), blackbird (*Turdus merula*) and blue tit (*Cyanistes caeruleus*), were also recorded.
- 3.3.2.7 The dates and weather conditions of the walking transects are provided in Table 3-1. With the exception of one survey visit on 9 April 2024 when weather conditions were considered to be suboptimal (heavy rain and poor visibility), all surveys were carried out in suitable weather conditions; in dry weather with low windspeed, and minimal cloud cover.

Table 3-1: Transect survey dates and weather conditions.

Survey Month	Parameter	Transect 1	Transect 2	Transect 3	Transect 4	Transect 5	Transect 6	Transect 7	Transect 8	Transect 9
April	Date	09.04.2024	09.04.2024	11.04.2024	10.04.2024	10.04.2024	11.04.2024	11.04.2024	12.04.2024	12.04.2024
	Temperature (degree Celsius (°C))	8	5	13	5	4	10	12	10	12
	Weather, visibility, and wind (Beaufort scale ²⁴)	Heavy showers, poor visibility, 5	Heavy showers, poor visibility, 6	Sunny, good visibility, 5	Dry, good visibility, 4	Dry, good visibility, 3	Sunny, good visibility, 4	Sunny, good visibility, 4	Sunny, good visibility, 1	Sunny, good visibility, 2
May	Date	14.05.2024	14.05.2024	16.05.2024	15.05.2024	15.05.2024	16.05.2024	16.05.2024	17.05.2024	17.05.2024
	Temperature (°C)	16	12	11	12	13	14	17	17	12
	Weather, visibility, and wind	Sunny, good visibility, 3	Dry, moderate visibility, 3	Dry, moderate visibility, 2	Dry, poor visibility, 2	Dry, good visibility, 3	Sunny, good visibility, 2	Sunny, good visibility, 2	Sunny, good visibility, 2	Sunny, good visibility, 1
June	Date	17.06.2024	19.06.2024	19.06.2024	18.06.2024	18.06.2024	19.06.2024	17.06.2024	20.06.2024	20.06.2024
	Temperature (°C)	11	11	14	12	12	10	11	12	15

Survey Month	Parameter	Transect 1	Transect 2	Transect 3	Transect 4	Transect 5	Transect 6	Transect 7	Transect 8	Transect 9
	Weather, visibility, and wind	Dry, good visibility, 3	Dry, good visibility, 2	Dry, good visibility, 3	Light showers, good visibility, 3	Dry, good visibility, 3	Dry, good visibility, 1	Dry, good visibility, 3	Sunny, good visibility, 1	Sunny, good visibility, 1
July	Date	16.07.2024	16.07.2024	18.07.2024	17.07.2024	17.07.2024	18.07.2024	18.07.2024	19.07.2024	19.07.2024
	Temperature (°C)	12	14	14	12	14	14	13	15	14
	Weather, visibility, and wind	Dry, poor visibility, 2	Dry, good visibility, 2	Steady rain, moderate visibility, 2	Dry, good visibility, 3	Dry, good visibility, 3	Dry, good visibility, 3	Dry, good visibility, 2	Sunny, good visibility, 4	Dry, good visibility, 3
August	Date	06.08.2024	06.08.2024	08.08.2024	07.08.2024	07.08.2024	08.08.2024	08.08.2024	09.08.2024	09.08.2024
	Temperature (°C)	16	14	15	15	14	14	15	13	15
	Weather, visibility, and wind	Sunny, good visibility, 2	Sunny, good visibility, 2	Sunny, good visibility, 4	Dry, good visibility, 5	Sunny, good visibility, 3	Sunny, good visibility, 2	Sunny, good visibility, 3	Dry, good visibility, 4	Dry, good visibility, 4

3.3.3 Recording Territories

3.3.3.1 The identification of permanent territories was based on the methods used for the BTO Common Bird Census (Marchant 1983²⁵; Bibby et al, 1992²⁶) including:

- A minimum of two records of song at a certain location as likely confirmation of a male holding a breeding territory;
- Records of a nest containing eggs or a nest with chicks present; and,
- Behaviour such as alarm calls or carrying faecal sacks from a nest or food carried to a nest.

3.3.3.2 Each species recorded was also assigned a likely breeding status based on the categories used by the Rare Breeding Birds Panel²⁷ (Annex 2 of this Appendix 3-4 for further information);

- Non-breeding: summering non-breeder, birds flying over the site, birds on migration;
- Possible breeding: species observed in breeding season in suitable nesting habitat, singing male present in breeding season;
- Probable breeding: pair observed in suitable nesting habitat in breeding season. Record of a presumed permanent territory due to territorial behaviour at the same place on at least two dates separated by one week. Courtship or display behaviour. Visiting a probable nest site. Alarm calls from adults and/or anxious behaviour. Nest building activities; or,
- Confirmed breeding: distraction display or injury feigning. Used nest or eggshells found. Recently fledged young present. Adults entering or leaving an occupied nest. Adults recorded incubating. Adults carrying faecal sacks or food for young. Nest containing eggs or young.

3.4 Assumptions and Limitations

3.4.1.1 Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour. The absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, professional judgement allows for the likely presence of these species to be predicted with sufficient certainty as to not significantly limit the validity of these findings.

3.4.1.2 Data obtained from the desk study was dependent upon records submitted for the area of interest. Therefore, absence of records of a particular species does not necessarily mean that the species do not occur in the OnTI RLB. Similarly, the presence of records for a given species does not necessarily mean that these would still be present or relevant in the context of the Proposed Development (Onshore).

- 3.4.1.3 Lockdown measures put in place during the Covid-19 pandemic limited the activities of many recording and volunteer groups meaning that, desk study records are highly likely to have incomplete data for the years 2020 and 2021.
- 3.4.1.4 The surveys of Transect 1 and Transect 2 on 9 April 2024 were carried out during suboptimal weather conditions which limited visibility along the coastline. However, these areas were also surveyed in March 2023 and March 2024 as part of the wintering bird surveys and for the remainder of the 2024 breeding season. These surveys were all undertaken in ideal weather conditions. Therefore, it is considered that overall the data collected across the other surveys accurately represents the bird species and assemblages likely to be present and can inform a robust assessment.

4 Results

4.1 Desk Study

4.1.1 Designated Sites

4.1.1.1 The Moray Firth SPA is within 10km of the Landfall Site (approximately 5.9km west at the nearest point). The SPA has been cited for supporting the following breeding populations of European importance:

- European shag (*Phalacrocorax aristotelis*; 3.2% of biogeographic region and 5.9% of Great Britain population during breeding season.

4.1.1.2 The SPA has also been cited for supporting the following migratory populations of European importance. Whilst not breeding species, these species may be recorded during the start and end of the breeding season so have precautionarily been included:

- Greater scaup (*Aythya marila*, 17.9% of the Great Britain population);
- Common eider (*Somateria mollissima*, 2.9% of the Great Britain population);
- Long-tailed duck (*Clangula hyemalis*, 45.5% of the Great Britain population);
- Common scoter (*Melanitta nigra* 5.5% of the Great Britain population);
- Velvet scoter (*Melanitta fusca*, 59.5% of the Great Britain population);
- Common goldeneye (*Bucephala clangula*, 4.5% of the Great Britain population); and
- Red-breasted merganser (*Mergus serrator*, 1.8% of the Great Britain population).

4.1.2 Biological Records

4.1.2.1 Only data from the past ten years has been used within this technical appendix, as ecological data collected later is unlikely to be representative of current conditions and species assemblages.

NESBReC

- 4.1.2.2 The NESBReC data search returned 34 records of birds within the past ten years within 500m of the OnTI RLB, comprising 12 different species. All of which are target species. These can be summarised as:
- Two species are legally protected by Schedule 1 of the WCA 1981³ (as amended) (green sandpiper and peregrine,).
 - None are qualifying species of the nearby SPA.
 - Six are BoCC5 'Red' listed species (grasshopper warbler, house sparrow, skylark, spotted flycatcher, starling and yellowhammer).
 - Five are BoCC5 'Amber' listed species (bullfinch, dunnock, green sandpiper, short-eared owl and snipe).
 - 11 are listed on the SBL (bullfinch, dunnock grasshopper warbler, green sandpiper, house sparrow, peregrine, short-eared owl, skylark, spotted flycatcher, starling, and yellowhammer).

WeBS Data Search

- 4.1.2.3 The BTO returned WeBS data for five areas around the Landfall Site. A summary of the data search is provided in Table 4-1. Only data relevant to the migratory and breeding bird seasons (March – September inclusive) was included. More detailed results can be found in Annex 3 of this Appendix 3-4.
- 4.1.2.4 The data returned comprised of 35 different species, of which 33 were target species and can be summarised as:
- Three are legally protected by Schedule 1 of the WCA 1981 (as amended);
 - Five are qualifying species of the nearby Moray Firth SPA;
 - 12 are 'Red' listed BoCC5;
 - 15 are 'Amber' listed BoCC5; and
 - Nine are listed on the SBL.
- 4.1.2.5 Greylag geese are only considered to be a Schedule 1 species within in the Outer Hebrides, Caithness, Wester Ross and Sutherland (RSPB, 2024²⁸). Although the Proposed Development (Onshore) is not within these areas, they have been included within the desk study data for completeness.
- 4.1.2.6 It must be noted that a species' conservation status and level of legal protection are not discrete categories and there may be overlap between them; a species may appear in more than one of the categories listed above. Therefore, the total number of species in each category may not relate to the total number of notable species recorded.

Table 4-1: Bird species recorded in WeBS data.

Date range	Bird species (common name)	Bird species (Latin name)	Legislation covering species
2016-2022	Black-headed gull	<i>Chroicocephalus ridibundus</i>	BoCC5 Amber list, SBL
2016-2022	Common gull	<i>Larus canus</i>	BoCC5 Amber list
2016-2022	Cormorant	<i>Phalacrocorax carbo</i>	N/A
2016-2021	Curlew	<i>Numenius arquata</i>	BoCC5 Red list, SBL
2017-2021	Dunlin	<i>Calidris alpina</i>	BoCC5 Red list, SBL
2016-2021	Eider	<i>Somateria mollissima</i>	BoCC5 Amber list, SPA qualifying species
2016-2022	Goldeneye	<i>Bucephala clangula</i>	SPA qualifying species, BoCC5 Red list
2017-2022	Goosander	<i>Mergus merganser</i>	N/A
2016-2022	Great black-backed gull	<i>Larus marinus</i>	BoCC5 Amber list
2016-2022	Grey heron	<i>Ardea cinerea</i>	N/A
2017-2022	Greylag goose	<i>Anser anser</i>	WCA Schedule 1, BoCC5 Amber list
2016-2022	Herring gull	<i>Larus argentatus</i>	BoCC5 Red list, SBL
2016-2021	Kittiwake	<i>Rissa tridactyla</i>	BoCC5 Red list
2016-2021	Knot	<i>Calidris canutus</i>	BoCC5 Amber list
2017-2022	Lapwing	<i>Vanellus vanellus</i>	BoCC5 Red list, SBL
2016-2022	Lesser black-backed gull	<i>Larus fuscus</i>	BoCC5 Amber list
2017-2022	Little Grebe	<i>Tachybaptus ruficollis</i>	N/A
2016-2022	Long-tailed duck	<i>Clangula hyemalis</i>	WCA Schedule 1, SPA qualifying species, BoCC5 Red list
2016-2022	Mallard	<i>Anas platyrhynchos</i>	BoCC5 Amber list

Date range	Bird species (common name)	Bird species (Latin name)	Legislation covering species
2017-2022	Mute swan	<i>Cygnus olor</i>	N/A
2016-2022	Oystercatcher	<i>Haematopus ostralegus</i>	BoCC5 Amber list
2017-2022	Pink-footed Goose	<i>Anser brachyrhynchus</i>	BoCC5 Amber list
2017-2022	Pochard	<i>Aythya ferina</i>	BoCC5 Red list, SBL
2016-2021	Purple sandpiper	<i>Calidris maritima</i>	WCA Schedule 1, BoCC5 Red list, SBL
2016-2022	Redshank	<i>Tringa totanus</i>	BoCC5 Amber list
2017-2021	Ringed plover	<i>Charidrius hiaticula</i>	BoCC5 Red list
2016-2021	Sandwich tern	<i>Sterna sandvicensis</i>	BoCC5 Amber list, SBL
2016-2022	Scaup	<i>Aythya marila</i>	SPA qualifying species, BoCC5 Red list SBL
2016-2021	Shag	<i>Phalacrocorax aristotelis</i>	BoCC5 Red list, SPA qualifying species
2016-2022	Teal	<i>Anas crecca</i>	BoCC5 Amber list
2016-2021	Turnstone	<i>Arenaria interpres</i>	BoCC5 Amber list
2017-2022	Tufted duck	<i>Aythya fuligula</i>	N/A
2017-2022	Wigeon	<i>Mareca penelope</i>	BoCC5 Amber list

4.2 Stakeholder Consultation

4.2.1.1 Consultation was undertaken with NatureScot regarding the methodology of this technical appendix. The results of this consultation are detailed in Table 4-2.

Table 4-2: Stakeholder consultation

Stakeholder	Date	Summary of Consultation
NatureScot	10 October 2023	<p>An agreement was reached regarding the proposed methodology for BBS via email.</p> <p>It was recommended by NatureScot that the BBS covered the whole of the season. The methodology was therefore updated to consist of five surveys which were spread across the survey season (April to August).</p>

4.3 Field Surveys

4.3.1 Extended Phase 1 Habitat Data

4.3.1.1 Upon completion of the Phase 1 habitat surveys carried out in 2023, it was identified that 67% of the land surveyed consists of cereal and non-cereal fields and the remaining 33% consists of grassland habitats (improved, semi-improved, marshy etc), woodlands, scrub, hedgerows, watercourses and urban habitats. This is considered representative of the wider landscape of the area which supports an abundance of suitable habitat for breeding birds.

4.3.2 2024 Transect Surveys

4.3.2.1 Transect routes were subject to five BBS visits, spread between April and August 2024 inclusive (Table 3-1). All target species (as listed in Section 3.3.1.7) are discussed further in Annex 4 of this Appendix 3-4, and breeding bird territory maps of the BoCC5 Red and Amber listed species within the survey area can be found in Annex 1 of this Appendix 3-4.

4.3.2.2 Within the OnTI RLB, a total of 74 bird species were identified, with a total abundance of 1,937 individual birds recorded. This comprised 48 target species and 26 non-target species. A breakdown of species richness and target species abundance is provided in Table 4-3.

4.3.2.3 No species listed as breeding qualifying features of the Moray Firth SPA were recorded during the survey period.

Table 4-3: Species richness levels and abundances for each transect.

Survey Station ID	Total Species Richness	Target Species Richness	Secondary Species Richness	Abundance
Study Area	74	48	26	1937
T1	43	25	18	246
T2	33	22	11	165
T3	41	26	15	225
T4	36	29	17	149
T5	45	27	18	327
T6	33	20	13	244
T7	25	15	10	100
T8	25	14	11	72
T9	47	30	17	409

4.3.2.4 Of these 74 species, a total of 41 were identified as ‘confirmed’ or ‘probable’ breeders during the survey period, and therefore likely to be actively breeding. Table 4-4 provides further details of all target species recorded, likely breeding status, and estimated number of territories within the OnTI RLB as a whole. For species that are not target species but were recorded as breeding within the OnTI RLB, please refer to Annex 5 of this Appendix 3-4 where all results are summarised. Annex 5 of this Appendix 3-4 also provides the number of estimated territories of target breeding bird species per transect.

4.3.2.5 Individual results for each transect are discussed in in Section 4.3.3 to 4.3.11.

Table 4-4 Summary of transect results for target species.

Species	WCA Schedule 1 ³	SBL	BoCC5	Breeding Status	Number of Territories
Barn owl	✓	✓	Green	Possible	1
Bullfinch		✓	Amber	Probable	2
Common gull			Amber	Non-breeding	0

Species	WCA Schedule 1 ³	SBL	BoCC5	Breeding Status	Number of Territories
Common sandpiper			Amber	Possible	0
Common whitethroat			Amber	Probable	5
Corn bunting		✓	Red	Confirmed	12
Cuckoo		✓	Red	Possible	0
Curlew		✓	Red	Probable	0
Dipper			Amber	Possible	0
Dunnock		✓	Amber	Confirmed	5
Fieldfare	✓		Red	Non-breeding	0
Golden plover		✓	Green	Non-breeding	0
Great Black-backed Gull			Amber	Non-breeding	0
Greenfinch			Red	Probable	1
Grey partridge		✓	Red	Probable	0
Grey wagtail			Amber	Non-breeding	0
Greylag goose			Amber	Non-breeding	0
Herring gull		✓	Red	Non-breeding	0
Hooded crow		✓	Green	Possible	0
House martin			Red	Probable	0**
House sparrow		✓	Red	Confirmed	2**
Lapwing		✓	Red	Probable	0
Lesser redpoll		✓	Red	Possible	0
Linnet		✓	Red	Confirmed	4
Mallard			Amber	Probable	1
Meadow pipit			Amber	Confirmed	5

Species	WCA Schedule 1 ³	SBL	BoCC5	Breeding Status	Number of Territories
Mistle thrush			Red	Possible	0
Oystercatcher			Amber	Possible	0
Pink-footed Goose			Amber	Non-breeding	0
Quail	✓		Amber	Possible	0
Redwing	✓	✓	Amber	Non-breeding	0
Reed bunting		✓	Amber	Confirmed	5
Rook			Amber	Confirmed	1**
Sedge warbler			Amber	Probable	2
Short-eared owl		✓	Amber	Possible	0
Siskin		✓	Green	Possible	0
Skylark		✓	Red	Confirmed	38
Song thrush		✓	Amber	Probable	1
Sparrowhawk			Amber	Possible	0
Starling		✓	Red	Confirmed	1**
Swift			Red	Non-breeding	0**
Tree sparrow		✓	Red	Confirmed	3**
Wheatear			Amber	Possible	0
Whooper swan	✓	✓	Amber	Non-breeding	0
Willow Warbler			Amber	Probable	4
Woodpigeon			Amber	Probable	7
Wren			Amber	Probable	20
Yellowhammer		✓	Red	Confirmed	23

** Semi-colonial species which do not necessarily have clearly defined territories.

4.3.3 Transect 1

4.3.3.1 Transect 1 covered the Landfall Site adjacent to the Moray Firth SPA. The survey area comprised large open, primarily agricultural fields and improved grassland, hedgerow, small areas of scrub, ditches/streams and the coastline along the Moray Firth which includes a section of the Cullen to Stake Ness Coast Site of Special Scientific Interest (SSSI). The SSSI has not been cited for bird species, and the nearest designated site to the location with a relevant bird citation is the Moray Firth SPA, approximately 5.4km to the west of the transect at the nearest point. The transect supported a total species abundance of 246 and a total species diversity of 43. This comprised 25 target species and 18 secondary species.

4.3.3.2 No Moray Firth SPA citation species were recorded within the Transect 1 survey area. One species listed on Schedule 1 of the WCA 1981³ (whooper swan), 10 Red and 15 Amber listed BoCC5¹⁴ and 21 SBL¹² species were recorded within the Transect 1 survey area.

4.3.4 Transect 2

4.3.4.1 The survey area covered by Transect 2 comprised primarily of large open fields/agricultural land and improved grassland, semi-improved grassland, woodland, parkland/scattered trees, streams/ditches, hedgerow and scattered scrub. The transect supported a total species abundance of 165 and a total species diversity of 33. This comprised 22 target species and 11 secondary species.

4.3.4.2 No Moray Firth SPA citation species or species listed on Schedule 1 of the WCA 1981³ were recorded within the Transect 2 survey area, eight Red and 13 Amber listed BoCC5¹⁴ and 12 SBL¹² species were recorded within the Transect 2 survey area.

4.3.5 Transect 3

4.3.5.1 The survey area covered by Transect 3 comprised primarily of large open fields/agricultural land and woodland, rivers/streams. The transect supported a total species abundance of 225 and a total species diversity of 41. This comprised 26 target species and 15 secondary species.

4.3.5.2 No Moray Firth SPA citation species were recorded within the Transect 3 survey area. Two species listed on Schedule 1 of the WCA 1981³ (whooper swan, barn owl), 11 Red and 13 Amber listed BoCC5¹⁴ and 18 SBL¹² species were recorded within the Transect 3 survey area.

4.3.6 Transect 4

4.3.6.1 The survey area covered by Transect 4 comprised primarily of large open fields/agricultural land, woodland, parkland/scattered trees, neutral

grassland, hedge and dense scrub. The transect supported a total species abundance of 149 and a total species diversity of 36. This comprised 29 target species and 17 secondary species.

- 4.3.6.2 No Moray Firth SPA citation species or species listed on Schedule 1 of the WCA 1981³ were recorded within the Transect 4 survey area. Seven Red and 11 Amber listed BoCC5¹⁴ and eight SBL¹² species were recorded within the Transect 4 survey area.

4.3.7 Transect 5

- 4.3.7.1 The survey area covered by Transect 5 comprised primarily of large open fields/agricultural land and improved grassland, woodland, neutral grassland, dense scrub and buildings. The transect supported a total species abundance of 327 and a total species diversity of 45. This comprised 27 target species and 18 secondary species.

- 4.3.7.2 No Moray Firth SPA citation species were recorded within the Transect 5 survey area. Three species listed on Schedule 1 of the WCA 1981³ (redwing, fieldfare, quail), 11 Red and 15 Amber listed BoCC5¹⁴ and 12 SBL¹² species were recorded within the Transect 5 survey area.

4.3.8 Transect 6

- 4.3.8.1 The survey area covered by Transect 6 comprised primarily of large open fields/agricultural land and improved grassland, scrub, streams/ditches, and woodland. The transect supported a total species abundance of 244 and a total species diversity of 33. This comprised 20 target species and 13 secondary species.

- 4.3.8.2 No Moray Firth SPA citation species were recorded within the Transect 6 survey area. One species listed on Schedule 1 of the WCA 1981³ (fieldfare), eight Red and 10 Amber listed BoCC5¹⁴ and 11 SBL¹² species were recorded within the Transect 6 survey area.

4.3.9 Transect 7

- 4.3.9.1 The survey area covered by Transect 7 comprised primarily of large open fields/agricultural land and neutral grassland, parkland/scattered trees, hedge and poor semi-improved grassland. The transect supported a total species abundance of 100 and a total species diversity of 25. This comprised 15 target species and 10 secondary species.

4.3.9.2 No Moray Firth SPA citation species were recorded within the Transect 7 survey area. Two species listed on Schedule 1 of the WCA 1981³ (fieldfare, redwing), six Red and nine Amber listed BoCC5¹⁴ and eight SBL¹² species were recorded within the Transect 7 survey area.

4.3.10 Transect 8

4.3.10.1 The survey area covered by Transect 8 comprised primarily of large open fields/agricultural land, standing water, neutral grassland, woodland and scrub. The transect supported a total species abundance of 72 and a total species diversity of 25. This comprised 14 target species and 11 secondary species.

4.3.10.2 No Moray Firth SPA citation species or species listed on Schedule 1 of the WCA 1981³ were recorded within the Transect 8 survey area. Seven Red and seven Amber listed BoCC5¹⁴ and six SBL¹² species were recorded within the Transect 8 survey area.

4.3.11 Transect 9

4.3.11.1 The survey area covered by Transect 9 comprised primarily of large open fields/agricultural land and improved grassland, neutral grassland, hedge, buildings, woodland, parkland/scattered trees, ditches and streams. The transect supported a total species abundance of 409 and a total species diversity of 47. This comprised 30 target species and 17 secondary species.

4.3.11.2 No Moray Firth SPA citation species or species listed on Schedule 1 of the WCA 1981³ were recorded within the Transect 9 survey area. A total of 15 Red and 14 Amber listed BoCC5¹⁴ and 20 SBL¹² species were recorded within the Transect 9 survey area.

5 Discussion and Conclusions

- 5.1.1.1 The desk study data from NESBReC returned no records of Moray Firth SPA qualifying species within 500m of the OnTI RLB. WeBS data returned one record of a breeding Moray Firth SPA qualifying species within 500m of the OnTI RLB (European shag), several migratory SPA qualifying species were also recorded (eider, goldeneye, long-tailed duck, and scaup).
- 5.1.1.2 The breeding bird surveys recorded no Moray Firth SPA qualifying species within the OnTI RLB.
- 5.1.1.3 The breeding bird assemblage recorded within the OnTI RLB was largely typical of species associated with agricultural areas. The presence of agricultural features such as large open arable fields, wet grassland, hedgerows and improved grassland has resulted in the recording of notable numbers of yellowhammer, skylark, corn bunting and wren.
- 5.1.1.4 A total of 74 species were recorded within or flying over the nine transect areas during the BBS. Of these 74 species, a total of 41 species were identified as actively breeding or exhibiting behaviour suggestive of breeding within the survey area as a whole, during the survey period. According to the adapted Fuller's scale (Fuller, 2018²⁹) the OnTI RLB is determined to be of 'District' importance for breeding birds. The adapted Fuller scale defines district importance as a site with between 25-49 breeding species, with the Proposed Development (Onshore) having 41 breeding species. The Chartered Institute of Ecology and Environmental Management (CIEEM) EcIA guidelines (CIEEM, 2022³⁰) considers species that are notable at the district level are defined as being of 'Local' importance.
- 5.1.1.5 A total of 21 target species (as defined in Section 3.3.1.7) were identified as being 'confirmed' or 'probable' breeders within the OnTI RLB during the 2024 survey period. A full species list can be seen in Annex 5 of this Appendix 3-4, alongside the estimated number of territories within each survey transect. None of the species recorded were species for which the nearby Moray Firth SPA is designated.
- 5.1.1.6 The OnTI RLB represents an area of valuable breeding bird habitat, particularly where a mosaic of habitats was present.
- 5.1.1.7 Generally, higher numbers and diversity of birds were noted in areas of scrub, woodland and hedges with some species (e.g. skylark, yellowhammer and corn bunting) also associated with the open agricultural and grassland areas and others with nearby buildings (e.g. barn owl, swallow). It will, therefore, be important to consider the protection and/or replacement of these key habitats at the next stage of the Proposed Development (Onshore), with particular caution applied if works are to take place during the breeding season.

- 5.1.1.8 An assessment of the potential impacts of the Proposed Development (Onshore) on the breeding bird assemblage can be found in Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity of the EIAR.

6 References

- ¹ Scottish Parliament (2004) 'Nature Conservation (Scotland) Act 2004'. Available at: <https://www.legislation.gov.uk/asp/2004/6/contents> (Accessed 18/10/2024).
- ² Scottish Parliament (2011) 'Wildlife and Natural Environment Act (2011)'. Available at: <https://www.legislation.gov.uk/asp/2011/6/contents/enacted>.
- ³ UK Parliament (1981) 'Wildlife and Countryside Act (1981) (as amended)'. Available at: <https://www.legislation.gov.uk/ukpga/1981/69/contents> (Accessed 18/10/2024).
- ⁴ UK Parliament (1994) 'The Conservation (Natural Habitats, &c.) Regulations 1994'. Available at: <https://www.legislation.gov.uk/uksi/1994/2716/contents/made> (Accessed 18/10/2024).
- ⁵ UK Parliament (2019) 'The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019'. Available at: <https://www.legislation.gov.uk/uksi/1994/2716/contents/made> (Accessed 18/10/2024).
- ⁶ European Union (2009) 'The Birds Directive'. Available at: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive_en (Accessed 01/09/2024)
- ⁷ Joint Nature Conservation Committee (2011) 'The UK Post-2010 Biodiversity Framework (2012-2019)'. Available at: <https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc#UK-Post2010-Biodiversity-Framework-2012.pdf> (Accessed 18/10/2024).
- ⁸ NatureScot (2023) 'Scottish Biodiversity Duty'. Available at: <https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/biodiversity-duty> (Accessed 18/10/2024).
- ⁹ Aberdeenshire Council (2023) 'Aberdeenshire Local Development Plan 2023'. Available at: <https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023/> (Accessed 18/10/2024).
- ¹⁰ Scottish Government (2023) 'National Planning Framework 4 (2023)'. Available at: <https://www.gov.scot/publications/national-planning-framework-4/> (Accessed 18/10/2024).
- ¹¹ Scottish Government (2022) 'Biodiversity strategy to 2045: Tackling the nature emergency-draft (2023)'. Available at: <https://www.gov.scot/publications/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland/> (Accessed 18/10/2024).
- ¹² NatureScot (2022) 'The Scottish Biodiversity List'. Available at: <https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/scottish-biodiversity-list> (Accessed 18/10/2024).
- ¹³ Joint Nature Conservation Committee (2007) 'The UK Biodiversity Action Plan'. Available at: <https://jncc.gov.uk/our-work/uk-bap/> (Accessed 18/10/2024).
- ¹⁴ Stanbury et. Al (2021) 'The status of our bird populations: 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'. Available at: <https://www.bto.org/our-science/publications/birds-conservation-concern/status-our-bird-populations-fifth-birds> (Accessed 18/10/2024).

¹⁵ NatureScot (Formerly Scottish Natural Heritage) (2017) 'Recommended bird survey methods to inform impact assessment of onshore windfarms (Scottish Natural Heritage). Available at: <https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms> (Accessed 18/10/2024).

¹⁶ NatureScot (2022) 'NatureScote Standing Advice for Planning Consultations-Birds (published 2022)'. Available at: <https://www.nature.scot/doc/standing-advice-planning-consultations-birds> (Accessed 18/10/2024).

¹⁷ NatureScot (2016) 'Assessing Connectivity with Special Protection Areas (SPAs) (Version 3- published June 2016)'. Available at: <https://www.nature.scot/doc/assessing-connectivity-special-protection-areas> (Accessed 18/10/2024).

¹⁸ NatureScot (2024) 'SiteLink Map Search'. Available online at <https://sitelink.nature.scot/map> (Accessed 18/10/2024).

¹⁹ Data were provided by WeBS, a Partnership jointly funded by the British Trust for Ornithology, Royal Society for the Protection of Birds and Joint Nature Conservation Committee, in association with The Wildfowl & Wetlands Trust, with fieldwork conducted by volunteers.

²⁰ Mitchell, C (2012) 'Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland'. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge. 108pp. Available at: https://www.bto.org/sites/default/files/mitchel_2012_mapping_distirbution_feeding_pinkfooted_and_greylag_geese_scotland_wwtsnh_report.pdf (Accessed 18/10/2024).

²¹ The Royal Society for the Protection of Birds (1998). Gilbert, G., Gibbons, D.W., & Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for UK Key Species. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

²² Colin J. Bibby, Neil D. Burgess., David A. Hill., and Simon H. Mustoe. (2000) 'Bird Census Techniques, Second Edition'. Academic Press, London, UK.

²³ British Trust for Ornithology. 'Bird Species Codes'. Available online at <https://www.bto.org/our-science/projects/breeding-bird-survey/taking-part/download-forms-instructions> (Accessed 18/10/2024).

²⁴ Met Office (2024) 'Beaufort wind force scale'. Available at: <https://www.metoffice.gov.uk/weather/guides/coast-and-sea/beaufort-scale> (Accessed 18/10/2024).

²⁵ Marchant, J.H. (1983) 'Common Birds Census Instructions'. BTO, Tring.

²⁶ Bibby, C. and Francis, I. (ND) 'Best Practice Guidance Notes'. Rare Breeding Bird Panel, East Lothian. Available at: <https://rbbp.org.uk/wp-content/uploads/2020/03/rbbp-recording-standards.pdf> (Accessed 18/10/2024).

²⁷ Bibby, C. and Francis, I. (ND) Best Practice Guidance Notes. Rare Breeding Bird Panel, East Lothian. Accessed at: <https://rbbp.org.uk/wp-content/uploads/2020/03/rbbp-recording-standards.pdf> (Accessed 18/10/2024).

²⁸ RSPB (2024) 'Wildlife and Bird Protection Laws UK'. Available at: <https://www.rspb.org.uk/birds-and-wildlife/schedules> (Accessed 02/09/2024).

²⁹ Fuller, R. J. (1980) 'A method for assessing the ornithological interest of sites for conservation'. *Biological Conservation – BIOL CONSERV.* 17. 229-239.

³⁰ CIEEM (2022) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2'. Chartered Institute of Ecology and Environmental Management, Winchester.

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