



**Ardersier Port Ltd.
2018 Breeding Bird Survey Report**



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Ardersier Port Ltd.

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1 INTRODUCTION

1.1 Remit

EnviroCentre Limited was commissioned by Ardersier Port Limited to undertake breeding bird surveys during the 2018 breeding season to inform an Ecological Impact Assessment (EclA) of a potential redevelopment of the port facilities at the former McDermott Yard, Ardersier, Nairnshire.

This report details the survey methods and the results of the survey, documenting those species found to be present. Species of conservation interest are discussed and, where necessary, recommendations for mitigation measures are given. These recommendations are made to avoid, reduce or compensate for any impacts the proposed redevelopment may have on the birds of the area.

Particular attention was paid to bird counts in the area of sand- and mud-flats to the north and northwest of the port facility, the shingle spit to the east, and the main channel adjacent to the existing quay wall which are the areas most likely to be affected by any redevelopment works.

Wintering bird surveys have been undertaken for many years on the site by Roy Dennis. The results of these surveys were used as background information for the breeding bird surveys, and although the wintering bird data has not been analysed and placed in the results section of this report, the data will be used to inform the EclA.

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1.3 Nature Conservation Legislation & Policy

1.3.1 General Nature Conservation Legislation & Policy

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

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

1.3.2 Legislation & Policy Relating to Birds

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

The Wild Birds Directive, or European Directive 2009/147/EC¹ (the codified version of EEC Directive 79/409/EEC as amended) and the Habitats Directive (EEC Directive 92/43/EEC)², state that all wild bird populations within the UK are protected under European legislation. Through these Directives, which highlight key species within specifically detailed annexes, came the establishment of a Europe-wide network of designated conservation areas known as Natura 2000 (comprised of Special Protection Areas (SPA) from the Birds Directive and Special Areas of Conservation (SAC) from the Habitats Directive). The breeding bird survey area is within the boundaries of an SPA and immediately adjacent a proposed SPA (pSPA).

A global conservation designation devised by BirdLife International is the network of Important Bird and Biodiversity Areas (IBAs), which often form the scientific basis for proposing new SPA sites. There are simple and robust criteria required to establish IBAs³, although all IBAs are: Places of international significance for the conservation of birds and other biodiversity; recognised world-wide as practical tools for conservation; distinct areas amenable to practical conservation action; identified using robust, standardised criteria; and sites that together form part of a wider integrated approach to the conservation and sustainable use of the natural environment.

The other main network of internationally important areas concerns Ramsar sites, which are wetlands of international importance. Many Ramsar sites are recognised for their bird populations, or the importance of their habitats and water quality to bird life. The Ramsar Convention is one of the oldest modern intergovernmental environmental agreements, which was negotiated through the 1960s, before being ratified in 1971. It became operational in 1975. There are strict criteria for an area to become a Ramsar site⁴. There are currently over 2200 sites across the world, covering in excess of 2.1 million square kilometres.

The Wildlife and Countryside Act 1981 (as amended)⁵ is the primary legislation that protects wild birds within the UK. Through a series of Schedules, this Act makes it an offence to intentionally kill, injure or take any wild

¹ EU Birds Directive: http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm (Accessed July 2018)

² EU Habitats Directive: http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm (Accessed July 2018)

³ IBA Criteria: <http://datazone.birdlife.org/site/ibacriteuro> (Accessed August 2018)

⁴ Ramsar Criteria: https://www.ramsar.org/sites/default/files/documents/library/ramsarsites_criteria_eng.pdf (Accessed August 2018)

⁵ Schedule 1 WCA 1981 & c.: http://incc.defra.gov.uk/pdf/waca1981_schedule1.pdf (Accessed July 2018)

bird or take, damage or destroy their nests or eggs. It is also an offence to intentionally or recklessly disturb the nest building, nests that contain eggs or young, or to disturb or take the dependent young of birds on the Schedule 1 list, which are offered the highest level of protection.

The Nature Conservation (Scotland) Act 2004 imposes a wide-ranging duty to conserve biodiversity and protect the nation's natural heritage. Implementation is linked to a national biodiversity strategy that is endorsed by the Scottish Government. Part of this strategy is the designation of Sites of Special Scientific Interest (SSSI) - those areas of land and water considered to best represent the diversity of natural heritage across Scotland. It is an offence for any person to intentionally or recklessly damage the protected natural features of an SSSI. There is one SSSIs within the breeding bird survey area for the proposed redevelopment of Ardersier Port.

On a local level or for particular species, the Scottish Biodiversity Strategy (Scottish Government 2004⁶ and 2013⁷) has the objective of halting the loss of biodiversity and continuing to reverse previous losses through targeted action for species and habitats through improved knowledge, planning, design, practice and management.

Scottish Planning Policy (Scottish Government 2014⁸) states that areas should be safeguarded and the character of the habitat enhanced, species diversity, rarity and extent must be established, and the species requirements must be fully factored into the planning and design of the development.

1.4 Survey Aims

The **aim** of the surveys was to determine the nature of the habitats and the presence and activity of all bird species, highlighting protected species, within the vicinity of the proposed port redevelopment.

Therefore, the **objectives** of the total survey effort are to:

- Determine the potential presence, activity and behaviour of protected birds within the vicinity of the proposed hydro scheme;
- Identify potential legal and policy constraints relevant to the species found which may be affected by the proposed hydro scheme; and
- Provide suitable mitigation, avoidance, compensation and enhancement measures, where required.

1.5 Survey Area

Ardersier Port is situated on the southern shore of the Moray Firth. It is approximately 7km west of Nairn, and 17km northeast of Inverness. The centre point of the extensive port area is located at approximately Ordnance Survey Grid Reference (OSGR) NH 80353 58016.

The survey area included the access road from the B9092 Ardersier to Delnies by-road, adjacent blocks of mixed secondary growth woodland, commercial forestry woodland, scrubland, saltmarsh on the Carse of Delnies, disused agricultural fields, the shingle spit leading to Whiteness Head, and the expanse of intertidal mud- and sand-flats to the north and northwest used as a shooting range by the Ministry of Defence, and marked as Danger Area on the Ordnance Survey maps.

The survey area is shown in Appendix A.

⁶ Scotland's Biodiversity – It's In Our Hands: <http://www.gov.scot/Resource/Doc/25954/0014583.pdf> (Accessed August 2018)

⁷ 2020 Challenge for Scotland's Biodiversity: <http://www.gov.scot/Resource/0042/00425276.pdf> (Accessed August 2018)

⁸ Scottish Planning Policy 2014: <http://www.gov.scot/Resource/0045/00453827.pdf> (Accessed August 2018)

2 METHOD

To ascertain the ornithological activity on the site, a desk-based study and field survey were undertaken to obtain up-to-date, site-specific data for 2018. All field survey work was undertaken and verified by experienced and competent ornithologists. The survey followed standard methods endorsed by Scottish Natural Heritage (SNH). This section provides details of the methods adopted.

2.1 Desk Study

2.1.1 Sources of Information

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

The desk study involved a search of the appropriate sources (Sitelink⁹ and Sketchmap¹⁰) for statutory designated sites concerning birds within a 10.0 kilometre radius (e.g. SPAs, SSSIs, Ramsar Sites) and non-statutory designated sites (e.g. IBAs, Local Nature Reserves and Sites of Importance for Nature Conservation).

2.1.2 Bird Conservation Criteria

The criteria used to define the current conservation status of UK bird populations are BAPs at national and local levels, and the Red, Amber and Green lists of Birds of Conservation Concern (BoCC)¹¹.

Both the UKBAP and the network of Local BAPs were initialised in response to the 1992 Convention of Biological Diversity¹² signed in Rio de Janeiro (also referred to as the Rio Convention). Implemented through the Biodiversity Steering Group, the BAPs identified both the habitat types and species that were of conservation concern. Plans were then drawn up to aid protection and conservation of these priority habitats and species.

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

Red-listed criteria

- Globally threatened;
- Historical population decline in UK during 1800 – 1995;

⁹ SNH Sitelink: <https://gateway.snh.gov.uk/sitelink/> (Accessed May 2018)

¹⁰ Sketchmap: <http://sketchmap.co.uk/> (Accessed May 2018)

¹¹ Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D & Gregory R. 2015. Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, **108**, 708-746. Or online at <https://www.bto.org/science/monitoring/psob> (Accessed August 2018)

¹² Rio Convention: <http://www.cbd.int/> (Accessed July 2017)

- Rapid ($\geq 50\%$) decline in UK breeding population over last 25 years; and
- Rapid ($\geq 50\%$) contraction of UK breeding range over last 25 years.

Amber-listed criteria

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

Green-listed criteria

No identified threat to the population's status.

In addition to the UKBAP and the BoCC criteria, the Scottish Biodiversity List was also used in the evaluation process. The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. It is based on the aims of the Scottish Biodiversity Strategy and the UKBAP and refers to the international importance of conserving certain species.

2.2 Breeding Bird Survey

The breeding bird surveys consisted of two elements, each conducted three times over a period from April to late-July, designed to maximise records of all species. These surveys were:

- A breeding bird survey in terrestrial areas; and
- A count of foraging and roosting seabirds, wildfowl and waders on the spit and on the mud- and sand-flats which border the terrestrial areas of the proposed redevelopment, and an inventory of seabirds, waterbirds and wildfowl on the Moray Firth immediately adjacent to the proposed development area.

The work was undertaken by Mike Coleman, Principal Ornithologist at EnviroCentre Limited and Schedule 1 Licence holder (No. 66155).

The survey methods are described below.

2.2.1 Breeding Bird Survey

These visits were based on the BTO Common Bird Census (CBC) method¹³ and the BTO Breeding Bird Survey (BBS) method¹⁴ and were spread out across the entire breeding period, with the final visit designed to coincide with post-breeding accumulations of locally breeding species and early passage waders migrating south from their Arctic breeding grounds. A route through the survey area was walked at a constant steady pace. All bird species were recorded, as is any relevant behaviour (gathering nesting material, territorial calling, fighting,

¹³ BTO, Common Bird Census method. <https://www.bto.org/about-birds/birdtrends/2011/methods/common-birds-census> (Accessed April 2018)

¹⁴ BTO Breeding Bird Survey method. <https://www.bto.org/about-birds/birdtrends/2011/methods/breeding-bird-survey> (Accessed April 2018)

feeding young, etc), which is then transferred to a 1:25000 scale map, from which breeding numbers or pairs/territories can be ascertained.

2.2.2 Bird Counts

All areas were scanned from suitable vantage points along the coastline using a telescope. All birds observed were recorded, being careful not to double count species that were more mobile, or out of sight at any given time.

Species present in the wider Moray Firth (considerably outwith the proposed site boundary for the proposed redevelopment works) were recorded, but do not appear in the results of the survey.

All observations were plotted in large, geographically demarcated areas on the 1:25000 scale map used during the breeding bird survey.

2.2.3 Wintering Bird Survey

Although the wintering bird data provided by Roy Dennis have not been used within this report, the survey area and the methods used for data collection were identical to the breeding bird survey.

Three winter's worth of data have been presented as Appendix C, and an assessment on these data will be provided in the EclA.

2.3 Survey Conditions

Surveys were undertaken on three dates during the 2018 breeding season. Tide times, local knowledge, forecast weather conditions and visibility were considered when timetabling the survey dates, however, conditions were variable.

The first survey was undertaken over an entire tide cycle, as included a comprehensive search of the spit and mud- and sand-flats to ascertain any topographical or habitat variation that may not be visible from the port and dune area.

The second and third surveys were undertaken to avoid high tide, in order to maximise the number of birds encountered, and to highlight any breeding birds present on the spit.

Generally, the surveys were completed in good weather conditions, with light breezes or no wind, and with excellent lateral visibility, with limited, high cloud cover, and no precipitation.

A summary of the dates, conditions, and survey effort is found below in Table 2.1.

2.4 Survey Constraints

The second survey was hampered slightly by the presence of some dense, low haar (sea mist), which meant full counts of foraging and/or roosting birds on the mud- and sand-flats was not possible.

There were no further constraints to the survey effort, or the field data obtained.

Table 2.1: Survey conditions and survey effort at Ardersier Port 2018

SURVEY ROUND	DATE	SURVEY*	SURVEY TIME	WIND DIRECTION*	WIND SPEED (/12)**	PRECIPITATION (/3)***	VISIBILITY ^x	CLOUD COVER (/8)#	CLOUD BASE (m)##	TEMPERATURE (°C)	SURVEYOR###
1	27/04/18	BBS	06.00 – 14.30	NW > E	2	0	EXCELLENT	7 > 4	600 > 1000+	7 > 15	MC
2	31/05/18	BBS	04.45 – 08.30	NE	1	0	GOOD > POOR (haar)	8	500 - 100	11 > 13	MC
3	26/07/18	BBS	05.10 – 08.45	0	0	0	EXCELLENT	1	2000	11 > 19	MC

LEGEND: * Survey BBS=breeding bird survey/coastal counts; *Wind Direction based on a 16 point compass direction; **Wind Speed is based on the Beaufort Scale; ***Precipitation Scale is 0=none, 1=light showers, 2=persistent rain/heavy showers, 3=heavy rain; ^xVisibility scale is EXCELLENT=5km+, GOOD=2-5km, POOR=1-2km, ZERO=<1km; #Cloud Cover is based on oktas; ##Cloud Base is metres above sea level; ###Surveyor, MC=Mike Coleman.

3 RESULTS

3.1 Desk Study Results

3.1.1 Designated sites (10km)

Site name	Designation ¹⁵	Distance and orientation (closest)	Features
Inner Moray Firth	SPA, Ramsar	Designated sites are within the site boundary. The designated areas continue to the south west of the site.	<p>SPA Qualifying Interest</p> <p>The site qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting populations of European importance of the Annex 1 species:</p> <ul style="list-style-type: none"> Osprey (<i>Pandion haliaetus</i>), up to 25 territories within feeding range, 12.5% of the GB population, with 4 pairs breeding within the site, representing 4% of the GB population; Common Tern (<i>Sterna hirundo</i>) 310 pairs, 2% of the GB population; and Bar-tailed Godwit (<i>Limosa lapponica</i>) 1,090 individuals, representing 2% of the GB population (5 year park mean 1992/3 to 1996/7). <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting populations of European importance of migratory species:</p> <ul style="list-style-type: none"> Greylag Goose (<i>Anser anser</i>) (2,651 individuals, 3% of the Iceland/UK/Ireland biogeographic population); Red-breasted Merganser (<i>Mergus serrator</i>) (1,184 individuals, 1% of the NW & Central Europe biogeographic population); and Redshank (<i>Tringa tetanus</i>) (1,621 individuals, 1% of the Eastern Atlantic biogeographic population). <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> Between 1992/93 to 1996/97 a winter peak mean of 26,800 individual waterfowl comprising 16,800 wildfowl and 10,000 waders including nationally important populations of the following species: Scaup (<i>Aythya marila</i>); Curlew (<i>Numenius arquata</i>); Goosander (<i>Mergus merganser</i>); Goldeneye (<i>Bucephala clangula</i>); Teal (<i>Anas crecca</i>); Wigeon (<i>Anas penelope</i>); Cormorant (<i>Phalacrocorax carbo</i>); Redshank; Red-breasted Merganser; Greylag Goose and Bar-tailed Godwit. In the five-year period 1991/92 to 1995/96, a winter peak mean of 33,148 individual waterfowl was recorded with the assemblage additionally including a nationally important population of Oystercatcher (<i>Haematopus ostralegus</i>) <p>Ramsar Qualifying Interest</p> <p>The site is designated as a Ramsar for the non-breeding populations of the following species:</p> <ul style="list-style-type: none"> Bar-tailed Godwit; Greylag Goose; Red-breasted Merganser; and

¹⁵ Special Protection Area (SPA), proposed Special Protection Area (pSPA), SAC (Special Area of Conservation), Site of Special Scientific Interest (SSSI), Important Bird and Biodiversity Area (IBA)

			<ul style="list-style-type: none"> Redshank. <p>The site is also designated for its waterfowl assemblage (non-breeding).</p>
Moray Firth	pSPA	Designated sites are within the site boundary. The designated areas continue to the south west and north east.	<p>Qualifying species</p> <p>This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <ul style="list-style-type: none"> Great northern Diver (<i>Gavia immer</i>) Red-throated Diver (<i>Gavia stellata</i>) Slavonian Grebe (<i>Podiceps auritus</i>) <p>The site further qualifies under Article 4.2 by regularly supporting populations of European importance of the following migratory species:</p> <ul style="list-style-type: none"> Greater Scaup (<i>Aythya marila</i>) Common Eider (<i>Somateria mollissima</i>) Long-tailed Duck (<i>Clangula hyemalis</i>) Common Scoter (<i>Melanitta nigra</i>) Velvet Scoter (<i>Melanitta fusca</i>) Common Goldeneye Red-breasted Merganser European Shag (<i>Phalacrocorax aristotelis</i>)
Whiteness Head	SSSI	Designated site is within the site boundary.	<p>The site is designated for the non-breeding populations of the following species:</p> <ul style="list-style-type: none"> Bar-tailed Godwit and Knot
Moray Basin Firths And Bays	IBA	Designated sites are within the site boundary.	<p>A complex area of coastline and estuary, including Loch Fleet, Dornoch Firth, Loch Eye, Cromarty Firth, Beaully Firth and Moray Firth (south shore including Burghead and Spey Bay), stretching from Helmsdale south to Spey Bay.</p> <p>These coastal areas form an integral unit that is Internationally important for populations of wintering and passage wildfowl.</p>
Rosemarkie to Shandwick Coast	SSSI	Approximately 4.5km north-west.	<p>The site is designated for breeding populations of the following species:</p> <ul style="list-style-type: none"> Cormorant
Culbin Sands	RSPB Nature Reserve	The reserve is approximately 7.5km east of the site.	<p>Once part of one of the largest sand dune systems in Britain, the remaining sand dunes along with the saltmarsh, mudflats and shingle make up a complex and dynamic system shifting with the wind and tides creating a delicate mosaic of vegetation.</p>
Moray and Nairn Coast	SPA, Ramsar	Designated sites are approximately 8km east of the site.	<p>SPA Qualifying Interest</p> <p>The site qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting populations of European importance of the Annex 1 species:</p> <ul style="list-style-type: none"> Osprey forage throughout the SPA (2008 to 2012, five year mean of up to 9 territories within feeding range, 4.5% of the GB population and 7 pairs breeding within the site, 7% of the GB population) Bar-tailed Godwit, 899 individuals representing 2% of the GB population (five year winter peak mean 1989/90 to 1993/94). <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> Pink-footed Goose (<i>Anser brachyrhynchus</i>), 7,538 individuals, 4% of the Eastern Greenland/Iceland/UK biogeographic population (winter peak mean 1988/89 to 1992/93); Greylag Goose, 3,023 individuals, 3% of the Iceland/UK/Ireland biogeographic population (winter peak mean 1988/89 to 1992/93); and Redshank, 1690 individuals representing 1% of the Eastern Atlantic biogeographic population (winter peak mean 1989/90 to 1993/94) <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting populations of European importance of migratory species:</p> <ul style="list-style-type: none"> In the five-year period 1989/90 to 1993/94, a winter peak mean of 24,000 individual waterfowl was recorded comprising 14,500 wildfowl and 9,500 waders including nationally important

			<p>populations of the following species: Bar-tailed Godwit; Pink-footed Goose; Greylag Goose; Redshank; Red-breasted Merganser.</p> <ul style="list-style-type: none"> A winter peak mean of 20,250 individual waterfowl was recorded, including nationally important populations in the five year period 1991/92 to 1995/96, greater than 2,000 individuals of the following species: Dunlin (<i>Calidris alpina alpina</i>); Oystercatcher; and Wigeon. <p>Ramsar Qualifying Interest The site is designated as a Ramsar for the non-breeding populations of the following species:</p> <ul style="list-style-type: none"> Greylag Goose; Pink-footed Goose; and Redshank. <p>The site is also designated for its waterfowl assemblage (non-breeding).</p>
Longman and Castle Stuart Bays	SSSI	8.5km south-west.	<p>The site is designated for the non-breeding populations of the following species: Non-breeding: Cormorant, Goldeneye, Red-breasted merganser, Redshank, and Wigeon</p>
Cromarty Firth	SPA, Ramsar, SSSI	Approximately 8.75km north.	<p>SPA Qualifying Interest The site qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting populations of European importance of the Annex 1 species:</p> <ul style="list-style-type: none"> Osprey forage throughout the SPA (2008 to 2012, five year mean of up to 25 territories within feeding range, 12.5% of the GB population, with 1 pair breeding within the site, 1% of the GB population) Common Tern, 294 pairs representing 2% of the GB population (1989 to 1993 mean); Whooper Swan, 64 individuals representing 1% of the GB population (1996/1997 winter peak mean) Bar-tailed Godwit, 1355 wintering individuals, representing 3% of the GB population. <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting populations of European importance of migratory species:</p> <ul style="list-style-type: none"> Greylag Goose, 1782 individuals, 2% of the Iceland/UK/Ireland biogeographic population (1992/93 to 1996/97 winter peak mean) <p>The site qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> In the five-year period 1992/93 to 1996/97, a winter peak mean of 30,200 individual waterfowl was recorded, comprising 14,800 wildfowl and 15,400 waders including nationally important populations of the following species: Redshank; Curlew; Knot; Red-breasted Merganser; Scaup; Pintail (<i>Anas acuta</i>); Wigeon; Greylag Goose; Bar-tailed Godwit and Whooper Swan. In the five-year period 1991/92 to 1995/96, a winter peak mean of 34,847 individual waterfowl was recorded with the assemblage additionally including nationally important populations of: Dunlin and Oystercatcher <p>Ramsar Qualifying Interest The site is designated as a Ramsar for the non-breeding populations of the following species:</p> <ul style="list-style-type: none"> Bar-tailed Godwit; and Greylag Goose; <p>The site is also designated for its waterfowl assemblage (non-breeding).</p> <p>SSSI Designation The site is designated for the non-breeding populations of the following species:</p>

			<ul style="list-style-type: none"> Bar-tailed Godwit, Red-Breasted Merganser, Redshank, Whooper Swan, and Wigeon
Nigg & Udale Bays	NNR	9.75km north-west	NNR identified on Sketchmap, however no information available from SNH Sitelink.
Udale Bay	RSPB Nature Reserve	9.75km north-west	Udale Bay is a reserve mainly comprised of coastal, estuary, mudflat and wetland habitats.

3.2 Breeding Bird Survey Results

A total of 80 species was recorded during the breeding bird surveys, of which eight are included within either Annex 1 of the Birds Directive or within Schedule 1 Part 1 of the Wildlife and Countryside Act 1981, and thus are afforded maximum protection under either European or national legislation:

- Red-throated Diver (*Gavia stellata*) and Black-throated Diver (*Gavia arctica*) are included in both Annex 1 and Schedule 1;
- Arctic Tern (*Sterna paradisaea*), Common Tern (*Sterna hirundo*), Sandwich Tern (*Thalasseus sandvicensis*) and Bar-tailed Godwit (*Limosa lapponica*) are all included on Annex 1; and
- Black-tailed Godwit (*Limosa limosa*) and Common Scoter (*Melanitta nigra*) are both included on Schedule 1.

Fifteen of the species recorded are included as Priority Species on the UKBAP and therefore on the Scottish Biodiversity List:

- Black-throated Diver;
- Black-tailed Godwit;
- Common Scoter;
- Cuckoo (*Cuculus canorus*);
- Curlew (*Numenius arquata*);
- Lesser Redpoll (*Acanthis cabaret*);
- Dunnoek (*Prunella modularis*);
- Song Thrush (*Turdus philomelos*);
- Skylark (*Alauda arvensis*);
- Starling (*Sturnus vulgaris*);
- Linnet (*Carduelis cannabina*);
- Yellowhammer (*Emberiza citrinella*);
- Bullfinch (*Pyrrhula pyrrhula*);
- Herring Gull (*Larus argentatus*); and
- Reed Bunting (*Emberiza schoeniclus*).

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

- Red-throated Diver;
- Arctic Tern;
- Common Tern;
- Sandwich Tern;
- Bar-tailed Godwit;
- Hooded Crow (*Corvus cornix*);
- Dunlin (*Calidris alpina schinzii*);
- Siskin (*Carduelis spinus*); and
- Kestrel (*Falco tinnunculus*).

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

- Kittiwake (*Rissa tridactyla*), Starling, Lesser Redpoll and Cuckoo have all suffered severe falls in their UK breeding numbers, both over the past 25 years and over the longer-term (dating back to 1969). Due to these numbers, Kittiwake is listed as Vulnerable on the ERLOB as well;
- Common Scoter has suffered severe longer-term and medium-term reductions in both its UK breeding numbers and its UK breeding range. It is considered a rare UK breeder (c. 52 pairs), and between 90% and 100% of its UK overwintering population can be found at ten or fewer sites;
- Song Thrush and Linnet have both suffered severe longer-term reductions in their UK breeding numbers;
- Mistle Thrush (*Turdus viscivorus*) and Skylark have all suffered severe longer-term and moderate medium-term falls in their UK breeding numbers;
- Curlew has also suffered severe longer-term and moderate medium-term falls in its UK breeding numbers, and is internationally important as 20-30% of its European breeding population are found within the UK. Due to these numbers, it is listed as Vulnerable on the ERLOB;
- Yellowhammer has suffered moderate longer-term and severe medium-term falls in its UK breeding numbers;
- Ringed Plover (*Charadrius hiaticula*) has suffered a severe longer-term and moderate medium-term decline in its UK non-breeding numbers, which contain between 50% and 60% of the species' European population. It has also suffered a moderate longer-term decline in its UK breeding numbers;
- Herring Gull has suffered a severe longer-term decline in its UK non-breeding population, which accounts for between 20% and 30% of the species' European population. It has also suffered a severe medium-term reduction in its UK breeding population;
- Black-tailed Godwit suffered a historical decline in its UK numbers (between 1800 and 1995). It has suffered a moderate decline in its UK breeding range since 1988, and is considered a rare breeder in the UK (c. 61-66 pairs). Between 90% and 100% of its UK overwintering population is currently found at ten sites or fewer, and has also been listed on the ERLOB;
- Shag (*Phalacrocorax aristotelis*) has suffered severe longer-term and moderate medium declines in their UK breeding numbers which constitutes between 50% and 60% of the total European breeding population; and
- Long-tailed Duck (*Clangula hyemalis*) is Globally Threatened under The International Union for Conservation of Nature (IUCN) guidelines, and appears on the IUCN Red List (and ERLOB) as Vulnerable.

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

- Willow Warbler (*Phylloscopus trochilus*), Common Sandpiper (*Actitis hypoleucos*) and Kestrel
- have all suffered moderate medium and longer-term declines in their UK breeding numbers;
- Meadow Pipit (*Anthus pratensis*), Bullfinch and Dunnock have all suffered moderate longer-term declines in their UK breeding numbers;
- Reed Bunting has suffered a moderate medium-term reduction in its UK breeding numbers;
- Great Black-backed Gull (*Larus marinus*) and Mallard (*Anas platyrhynchos*) have both suffered moderate longer-term decline in their UK non-breeding numbers. Great Black-backed Gull has also suffered a moderate medium-term decline in its UK breeding numbers;
- Shelduck (*Tadorna tadorna*) has suffered a moderate longer-term decline in its UK breeding numbers which constitutes more than 20% of its European breeding population. It also has more than 50% of its UK overwintering populations present at ten or fewer sites, and these populations constitute over 20% of its European non-breeding population;
- Dunlin has over 50% of its UK breeding and non-breeding populations present at ten or fewer sites. Its UK breeding range has suffered a moderate longer-term decline, and its UK overwintering population has suffered a moderate medium-term decline in numbers.

- Arctic Tern has suffered a moderate longer-term decline in both its UK breeding numbers and its UK breeding range;
- Common Tern and Sandwich Tern both have more than 50% of their UK breeding populations present at ten or fewer sites. Sandwich Tern has also suffered a moderate longer-term decline in its UK breeding numbers;
- Turnstone (*Arenaria interpres*) and Black-headed Gull (*Chroicocephalus ridibundus*) have both suffered a moderate longer-term decline in their UK non-breeding populations. These populations account for more than 20% of each species' European population;
- Gannet (*Morus bassanus*), Razorbill (*Alca torda*) and Guillemot (*Uria aalge*) all have more than 50% of their UK breeding populations present at ten or fewer sites, and these populations constitute over 20% of the total European breeding population for each species;
- Common Gull (*Larus canus*) is Amber-listed as 20% of its European population overwinters in the UK;
- Knot (*Calidris canutus*) and Bar-tailed Godwit both have more than 50% of their UK overwintering populations present at ten or fewer sites, and these populations constitute over 20% of each species' European population;
- Sanderling (*Calidris alba*) and Greylag Goose (*Anser anser*) both have more than 50% of their UK overwintering populations present at ten or fewer sites;
- Redshank (*Tringa totanus*) has suffered a moderate longer-term decline in both its UK breeding and non-breeding populations and a moderate longer- and medium-term decline in its UK breeding range. Its UK non-breeding population constitutes over 20% of the European population;
- Oystercatcher (*Haemantopus ostralegus*) has more than 50% of its UK overwintering population present at ten or fewer sites and this population constitutes over 20% of its total European population. The UK also holds more than 20% of the European breeding population. Due to these numbers, Oystercatcher is also listed as Vulnerable on the ERLOB;
- Eider (*Somateria mollissima*) is listed as Vulnerable on the ERLOB;
- Black-throated Diver is considered a UK breeding rarity (c. 220 breeding pairs) and a UK non-breeding rarity;
- Mute Swan (*Cygnus olor*) has more than 20% of its European overwintering population present in the UK; and
- Stock Dove (*Columba oenas*) has over 20% of its European breeding population present in the UK.

Red-throated Diver is afforded extra protection through its inclusion within either Annex 1 or Schedule 1, however its breeding numbers are considered to be stable (or increasing), and as a result it is not considered to have any national conservation concern. Therefore, it is included on the BoCC Green List.

Similarly, despite the presence of Siskin and Hooded Crow on the Scottish Biodiversity List, due to a steady increase in breeding numbers nationally and internationally, they are also included on the BoCC Green List.

The remaining 31 species recorded are considered to have no conservation concern and are not covered in the above legislation; therefore appear only on the Green List of BoCC, or are unclassified due to a lack of data: Blackbird (*Turdus merula*), Blue Tit (*Cyanistes caeruleus*), Buzzard (*Buteo buteo*), Carrion Crow (*Corvus corone*), Chaffinch (*Fringilla coelebs*), Chiffchaff (*Phylloscopus collybita*), Coal Tit (*Periparus ater*), Coot (*Fulica atra*), Cormorant (*Phalacrocorax carbo*), Feral Pigeon (*Columba livia*), Goldcrest (*Regulus regulus*), Goldfinch (*Carduelis carduelis*), Great Spotted Woodpecker (*Dendrocopos major*), Great Tit (*Parus major*), Grey Heron (*Ardea cinerea*), Jackdaw (*Corvus monedula*), Little Grebe (*Tachybaptus ruficollis*), Long-tailed Tit (*Aegithalos caudatus*), Pheasant (*Phasianus colchicus*), Pied Wagtail (*Motacilla alba yarrellii*), Red-breasted Merganser (*Mergus serrator*), Robin (*Erithacus rubecula*), Sand Martin (*Riparia riparia*), Sedge Warbler (*Acrocephalus schoenobaenus*), Sparrowhawk (*Accipiter nisus*), Swallow (*Hirundo rustica*), Tufted Duck (*Aythya fuligula*), Wheatear (*Oenanthe oenanthe*), Whitethroat (*Sylvia communis*), Woodpigeon (*Columba palumbus*), Wren (*Troglodytes troglodytes*).

A summary of the legal protection and conservation status of the species recorded and the dates of the species' records can be found in Table 3.1 below. The species are listed in order of importance based on the level of their legal protection and their UK and Scottish conservation status.

The table also lists the geographical areas of the site where the species were recorded. These areas are illustrated in Appendix A. A simplified list of habitats for each of these areas can be found in Appendix B.

Table 3.1: A summary of the legal protection and conservation status of species recorded at Ardersier Port, and the zones in which they were recorded

Species	Legal Protection		Conservation Status					Zones in which species was recorded
	Annex 1	Schedule 1	UK BAP	SBL	Red	Amber	Green	
Black-throated Diver	X	X	X	X		X		B
Red-throated Diver	X	X		X			X	B
Arctic Tern	X			X		X		A, B, C
Common Tern	X			X		X		A, B, C
Sandwich Tern	X			X		X		A, B, C
Bar-tailed Godwit	X			X		X		A
Black-tailed Godwit		X	X	X	X			A, C
Common Scoter		X	X	X	X			B
Lesser Redpoll			X	X	X			L, M, N
Herring Gull			X	X	X			A, B, C, E, G, H
Curlew			X	X	X			A, C, E, I
Cuckoo			X	X	X			N
Linnet			X	X	X			D, G, I, L, N
Skylark			X	X	X			C, D, I, N
Song Thrush			X	X	X			F, J, K, L, M, N
Starling			X	X	X			G, N
Yellowhammer			X	X	X			J, L, M, N
Bullfinch			X	X		X		L, N
Reed Bunting			X	X		X		F, L, M, N
Duncock			X	X		X		K, L, N
Dunlin				X		X		A, C, E

Kestrel				X		X		N
Hooded Crow				X			X	C, H, N
Siskin				X			X	N
Kittiwake					X			B
Long-tailed Duck					X			B
Shag					X			C
Ringed Plover					X			A, C, D, E
Mistle Thrush					X			M, N
Greylag Goose						X		N
Turnstone						X		A, C
Oystercatcher						X		A, C, E, G, I, N
Great Black-backed Gull						X		A, C, E, G
Knot						X		A
Common Gull						X		A, B, C, E, I
Black-headed Gull						X		A, C, I
Sanderling						X		C
Eider						X		C
Redshank						X		A, C, E
Meadow Pipit						X		C, D, G, I, M, N
Common Sandpiper						X		C
Mallard						X		F
Mute Swan						X		F
Willow Warbler						X		D, F, J, K, L, M, N
Gannet						X		B
Razorbill						X		B
Guillemot						X		B
Shelduck						X		C, E
Stock Dove						X		I
Tufted Duck							X	F
Long-tailed Tit							X	L, M, N

Grey Heron							X	F, I
Cormorant							X	A, B
Red-breasted Merganser							X	B, C
Jackdaw							X	G, N
Carrion Crow							X	C, D, E, G, H, J, L, N
Wheatear							X	C, D, G
Pied Wagtail							X	C, D, E, G, H, N
Swallow							X	F, G, H, L, M, N
Goldfinch							X	G, L, M, N
Wren							X	C, D, F, H, J, K, L, M, N
Woodpigeon							X	F, J, K, L, M, N
Coot							X	F
Little Grebe							X	F
Sand Martin							X	D, F
Buzzard							X	K, N
Coal Tit							X	J, L
Goldcrest							X	J, K, L, N
Robin							X	J, L, N
Chiffchaff							X	L, M, N
Pheasant							X	K, M, N
Sparrowhawk							X	N
Blue Tit							X	L, N
Great Tit							X	J, L, N
Blackbird							X	L, N
Chaffinch							X	J, K, L, M, N
Sedge Warbler							X	L, N
Great Spotted Woodpecker							X	L, N
Whitethroat							X	L, N
Feral Pigeon							Unclassified	G, L

4 DISCUSSION OF SURVEY DATA

Forty-eight of the recorded species are afforded extra legal protection through their inclusion within either Annex 1 or Schedule 1, or are species of conservation concern through their inclusion on the UKBAP, SBL, or BoCC Red or Amber lists. None of the sightings constitutes unusual records locally, with many of the species being common and widespread overwintering birds, passage birds or locally breeding birds. Much of the nationwide fall in breeding numbers for many of the Red and Amber listed species is not mirrored in Scotland, where very few species have suffered declines in their historical breeding numbers¹⁶. As a result, there is no local or regional concern over the status of their breeding numbers within the survey area, or therefore over their conservation status.

The survey area incorporated parts of several sites designated for their bird life. The qualifying species of these sites are predominantly overwintering accumulations of waders which utilise the expanse of mud- and sand-flats in Whiteness Bay and in the intertidal habitats along the Moray Firth, and waterfowl/seaduck which forage on the Firth.

Osprey is designated for its breeding population, however there is no suitable breeding location around the survey area, and is most likely encountered using the channel and the shallow coastal waters to forage during the breeding season and on passage.

The qualifying species which are most likely to be found breeding in the coastal habitats present at Ardersier Port would be terns, which historically bred along the shingle spit leading to Whiteness Head. There was no sign of any breeding occurring during any of the visits - the level of human activity along the spit (including dog walking and horse riding) is likely to have had a long-term disturbance effect on any tern colony, as is the presence of fox (*Vulpes vulpes*) which were evident through the observation of scats along the length of the spit.

The species list obtained from the surveys is typical of the mixed habitats present on site, and typical of the geographical area, with the majority of the passerine records constituting breeding birds on site. The commercial forestry contains some mature trees that are suitable nesting habitat for a variety of woodland species, as do the scrub habitats and secondary growth areas which have colonised parts of the former McDermott Yard. The disused buildings on site host several species, and the vast apron area of the former dock hosts several ground-nesting species.

The lagoon, which forms part of the Whiteness Head SSSI, has several breeding species of both waterfowl and passerine in its fringe vegetation, although the SSSI designation is for passage and non-breeding wader aggregations on the mud- and sand-flats.

The April survey contained records of the lingering non-breeding accumulations of seabirds present in the Moray Firth, although many of these sightings were recorded for background information, and were foraging some distance from the spit and Whiteness Head, and therefore would not be subjected to disturbance from any construction work on the terrestrial areas of the site, along the spit, or in the Main Channel.

The bird counts away from the terrestrial areas produced good numbers of actively foraging waders and gulls, and roosting terns, waders and duck. Approximate July low-tide counts during the survey produced the following numbers per species:

- Oystercatcher, Dunlin & Knot – 100>1000

¹⁶ Forrester, R.W., Andrews I.J., McInerny C.J., Murray R.D., McGowan R.Y., Zonfrillo B., Betts M.W., Jardine D.W. & Grundy D.S. (eds). 2012. *The Birds of Scotland. Digital Version pp52-53*. The Scottish Ornithologists Club, Aberlady.

- Curlew, Redshank, Ringed Plover, Common, Sandwich & Arctic Terns, Herring, Common & Black-headed Gulls – 20>100
- Great Black-backed Gull - 15
- Turnstone – 6
- Black-tailed Godwit – 4

In addition to these, the tern roost at Whiteness Head held a mixed flock of 520 Arctic and Common Terns, an estimated 33% of which were juvenile birds, presumably all breeding birds from elsewhere in Moray, Inverness-shire or Ross-shire.

Apart from potential fox predation along the spit, there was no other concern for breeding birds on site, with mammal signs limited to fox, roe deer (*Capreolus capreolus*) and rabbit (*Oryctolagus cuniculus*), which were present throughout the site. A grey seal (*Halichoerus grypus*) haulout on Whiteness Sands produced four individuals at high-tide during the April visit, 120+ at low-tide in May, and 44 at low-tide in July.

5 FURTHER SURVEYS AND MITIGATION

5.1 Further Surveys

It is recommended that further surveys are undertaken in targeted areas immediately prior to any works on the redevelopment commencing. These pre-construction surveys will ascertain if any constraints are present (e.g. breeding birds, suitable nesting sites for birds) in areas of proposed construction activity. This information will inform the final design and construction programme for the site.

5.2 Mitigation

During any construction phase on the site, it is recommended that a suitably qualified ornithologist / Ecological Clerk of Works (ECoW) is available to undertake regular monitoring of the site and to advise the contractor on bird-related issues.

Construction work in terrestrial areas will ideally be timed outwith the bird breeding season (approximately early-April to late-July in this area), especially if any tree felling or clearance of vegetation is required during the enabling works. Should a nest be discovered during works, the ECoW will create a buffer zone within which access will not be permitted until breeding is completed.

Any work required on the spit or mud- and sand-flats should be undertaken through the summer months to minimise any disturbance or displacement to qualifying species of the Inner Moray Firth SPA and Moray Firth pSPA which are present during the non-breeding period (approximately mid-September to early-April).

APPENDICES

A BIRD SURVEY AREA



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Site Boundary
- Bird Recording Areas

Bird Habitats

- Common Seal haulout
- Low-tide tern roost
- Sand Martin Colony
- Mean Low Water Spring (MLWS)
- Mean High Water Spring (MHWS)

Tidal contours from May 2018 Aspect
Topographic and Bathymetric survey

Do not scale this map

Client

Ardersier Port Ltd

Project

Ardersier Port Redevelopment

Title

Bird Survey Area

Status

FINAL

Drawing No.	Revision
670191-010	

Scale	A3	Date
1:25,000		24 Sep 2018
Drawn	Checked	Approved
SMC	MC	MC

Craighall Business
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B HABITAT TYPES FOR BIRD RECORDING AREAS

ZONE	HABITAT
A	Extensive intertidal mud- and sand-flat, Moray Firth
B	Intertidal mud- and sand-flat, Moray Firth
C	Intertidal mud- and sand-flat, shingle spit, deep water channel
D	Sand dunes and scrub
E	Intertidal mud- and sand-flat
F	Freshwater lagoon with surrounding bushes, trees and scrub
G	Hardstanding, sand, derelict buildings, former port infrastructure
H	Derelict buildings, hardstanding, some small trees
I	Shingle spit, freshwater channel, saltmarsh, low-level grazing fields
J	Mature coniferous plantation forestry
K	Mature mixed plantation forestry
L	Former port infrastructure, hardstanding, scrub and mixed trees
M	Former agricultural buildings and fields, scrub, grassland and mixed trees
N	Agricultural fields, scrub, grassland, bushes and mixed trees

C WINTER BIRD COUNT DATA

Counts by Roy Dennis	2015/16				2016/17			2017/18		
	18-Oct-15	13-Dec-15	24-Jan-16	21-Feb-16	18-Dec-16	15-Jan-17	12-Feb-17	03-Dec-17	21-Jan-18	18-Feb-18
Red-throated Diver	3		1							2
Black-throated Diver										2
Great Northern Diver			1							
Little Grebe	1	4	1	1	3	3	2	3	1	6
Cormorant	21	21		12	14	4	6	8	6	8
Shag	8	2							2	
Grey Heron	2						1		2	
Mute Swan	1	2			5	3	2	2	2	2
Whooper Swan	5	3			4			4		
Pink-footed Goose	1	80 to W								
Brent Goose							8			
Shelduck			28	45	19	2	23	27	7	17
Wigeon	12	436	515	57	57	5	174	56	249	30
Teal		148	35	37	58	22	46	39	16	28
Mallard		51	27	28	67	2	52	15	23	16
Pintail		1								
Tufted Duck	14	3		7					7	
Eider					2		70	218	314	273
King Eider								1		
Long-tailed Duck		2	1		3	1	80	6		470
Common Scoter										338
Goldeneye		7	8	7	7		7	11	4	11
Red-breasted Merganser	41	32	5	33	3	15	3	1	18	14
Moorhen								1		
Oystercatcher	337	430	327	256	503	148	382	343	570	477
Ringed Plover				1						
Golden Plover		18								
Grey Plover	5				11					5
Knot		1200	700	5	2080	53		400	96	236
Sanderling			18	18	34		18	19		
Dunlin	60	116	410	450	590	56	670	850	360	320
Bar-tailed Godwit		15	262	193	42	6		154	48	118
Curlew		99	101	114	32	64	103	22	163	110
Redshank	168	207	149	157	67	22	178	128	144	135
Turnstone	7			1			4		3	3
	quad bike									
	scramblers									
	dog walkers		dog walkers	dog walkers	dog walkers	dog walkers				dog walkers
						5 joggers				