

# KIRKTON SOLAR PV ECOLOGICAL ASSESSMENT

## Ecological Assessment Report

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## REPORT

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# 1 INTRODUCTION

## 1.1 Background

RPS was commissioned by Elgin Energy to undertake an Ecological Assessment of the proposed Kirkton Solar Photovoltaic (PV) and energy storage facility approximately 1.2km southeast of St. Fergus Village, Peterhead, (central Ordnance Survey grid reference NK 11151 50845). The location of the proposed solar farm is shown in Figure 1.

The proposed Kirkton Solar PV and energy storage facility will comprise PV Solar Panels erected on steel or aluminium frames in linear arrays. Works will also involve construction of accompanying infrastructure, specifically a Primary Sub-Station, 50 Inverter substations, deer style fencing and associated internal service tracks. The storage facility will be comprised of approximately 10 storage units. Access for the site is via an existing lane from the A90 located immediately to the west of the Site.

When constructed the electricity generating station will have an installed capacity in excess of 50MW consisting of a solar PV farm of approximately 50MW capacity and a battery energy storage facility with a capacity of approximately 20MW.

This report presents the methods and findings of a Preliminary Ecological Appraisal (PEA), which included a desk study and consultation exercise as well as a Phase 1 Habitat Survey and relevant protected species surveys. It identifies potential ecological constraints and features of ecological interest located within and immediately adjacent to the site and provides recommended mitigation and enhancement measures where necessary.

## 1.2 Report Objectives

The key objectives of the assessment were to:

- Identify the broad habitat types and dominant floral communities within the survey area by undertaking a Phase 1 Habitat Survey;
- Identify suitable habitat capable of supporting legally protected and notable species of conservation concern;
- Identify the presence of any legally protected and notable species of conservation concern;
- Identify the presence of Invasive Non-Native Species (INNS) subject to legal control;
- Assess any potential affects the proposed solar farm may have on any designated sites, protected or notable habitats or species; and
- Make recommendations for avoidance, mitigation and compensation measures that should be addressed in the scheme design.

This report includes details of the methodology used (Section 2), the results obtained (Section 3) and identifies the potential impacts the proposals could have and appropriate mitigation measures where required(Section 4).

## 1.3 Relevant Legislation

A summary of the legislation relevant to protected species, or those which may pose a potential constraint to the scheme as identified in this report, are provided in Appendix A and include:

- Conservation of Habitats and Species (Amendment) (EU Exit) regulations 2019;
- The Wildlife and Countryside Act 1981 (as amended); and
- The Protection of Badgers Act 1992.

## 1.4 Terms, Conditions of Use & Limitations

The following definitions are used in this report and are delineated in Figure 2:

- **The Site:** the area of the proposed development identified as the Application Boundary on Figure 2 in which all works will be undertaken and which is the subject for the application for consent; and
- **Survey Area:** an area encompassing the proposed application sites plus a specific buffer dependent on the type of survey. Again these are shown in Figure 2.

### 1.4.1 Limitations

During the PEA private properties within the Survey Area were not assessed due to access permissions. In addition:

- The presence of cattle in a field in the north-east corner of the site meant that the field could not be entered due to health and safety considerations;
- The interior woodland area north of North Kirkton was not accessed due to signage discouraging access; and
- An area north of the cemetery and east of the access road was not accessible due to a high barbed wire fence and a locked gate.

These constraints are not felt to have a detrimental effect on the data collected as all inaccessible areas were visible from boundaries. Areas of land which have not been accessed are shown in Figure 3.

The majority of ecological data remains valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for 18 months, notwithstanding any considerable changes to the site conditions.

The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) contained therein.

## 2 METHODOLOGY

### 2.1 Desk Study

#### 2.1.1 Designated Sites

A desk-based assessment was undertaken to gather information on the potential value of the Site and wider area for protected species including birds through the following:

- A request was made to North East Scotland Biological Records Centre (NESBREC) on 11 November 2020 for all records of notable and protected species within 2 km of the Site within the last 10 years;
- NatureScot (previously known as Scottish Natural Heritage (SNH)) SiteLink website<sup>1</sup> was consulted to identify the presence of any protected areas (e.g. Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)) within 2 km of the Site boundary;
- Searches for sites designated for their ornithological interests extended up to 20 km from the proposed Site boundary. This was based on the recognised commuting distance of pink-footed geese (*Anser brachyrhynchus*) (SNH, 2013<sup>2</sup>), a species which is associated with a number of designated sites in north eastern Scotland;
- The local Amphibian and Reptile Group (ARG) were contacted on 05 November 2020 with regards the likely presence/absence of great crested newts (*Triturus cristatus*) in the region; and
- Aerial imagery was studied prior to the survey to inform any areas of high sensitivity which might require additional survey effort during the site visit.

### 2.2 Field Surveys

The field surveys for the PEA of the Site were first undertaken by an experienced ecologist on 23-24 April 2018. The findings of the PEA resulted in red squirrel and great crested newt being scoped out of the study due to the absence of local records and/or suitable habitat and as such they will not be considered further in this document. Further information received from the local ARG that indicated that although there is a great crested newt population around Inverness and Moray, that while it is impossible to prove a negative, the likelihood is that the species has been absent from the harsher east coast for hundreds if not thousands of years (O'Brien et al, 2020).

Surveys were updated in 2020 to reflect any changes in the habitats or land-use and to facilitate updated protected species survey results. Consequently, the Phase 1 Habitat survey and protected species walkover survey was repeated in 23-24 November 2020. Surveys undertaken and buffers applied are set out below. Full details of the methodologies used are included in Appendix B:

- Phase 1 Habitat Survey (April 2018 and November 2020) – encompassing the Site plus 250m;
- Otter Survey (*Lutra Lutra*) (April 2018 and November 2020) – encompassing the Site plus 250m;
- Water Vole Survey (*Arvicola amphibious*) (April 2018 and habitat assessment only in November 2020) – encompassing the Site plus 50m;
- Badger Survey (*Meles meles*) (April 2018 and November 2020) – encompassing the Site plus 50m;
- Preliminary Bat Roost Potential (PBRP) (*Chiroptera spp.*) (April 2018 and November 2020) – encompassing the Site plus 50m;
- Generic Breeding Bird Surveys (April - July 2018)– encompassing the Site plus 250m; and
- Winter Goose Survey (February – April 2018) – encompassing the Site plus 500m.

<sup>1</sup> <https://sitelink.nature.scot/map> Accessed on 05.01.20.

<sup>2</sup> SNH (2013). Assessing Connectivity with Special Protection Areas (SPAs). July 2013.

## 3 RESULTS

### 3.1 Preliminary Ecological Appraisal

#### 3.1.1 Desk Study

NESBREC returned the data search detailing the Protected and Notable Species within 2 km of the Study Area within 10 years. The key species are noted in Table 1 and 2 with a full species list for birds on the Birds of Conservation Concern (BoCC) (Eaton et al., 2015) provided in Appendix C.

**Table 1: Protected and Notable Species (excluding Birds)**

Species	Scientific Name	Date of Record	Location	Grid Reference	Designation
<b>Terrestrial Mammals</b>					
Brown hare	<i>Lepus europaeus</i>	02/06/2010	Ednie	NK089507	UK BAP
Brown hare	<i>Lepus europaeus</i>	02/06/2010	Ednie	NK087505	UK BAP
Brown hare	<i>Lepus europaeus</i>	22/03/2011	Kirkton	NK1041250295	UK BAP
Brown hare	<i>Lepus europaeus</i>	22/07/2014	Inverugie (Hallmoss)	NK1048	UK BAP
Eurasian badger	<i>Meles meles</i>	2000 - 2015	Inverugie	NK1048	BA1992
Eurasian badger	<i>Meles meles</i>	08/11/2013	St Fergus	NK100518	BA1992
Eurasian badger	<i>Meles meles</i>	21/08/2015	Lunderton	NK1049	BA1992
Eurasian badger	<i>Meles meles</i>	05/07/2017	Ugie	NK108483	BA1992
Eurasian badger	<i>Meles meles</i>	04/06/2019	St Fergus	NK102513	BA1992
European otter	<i>Lutra lutra</i>	06/01/2013	Scotstown Head coast	NK1152	EPS
Pine marten	<i>Martes martes</i>	24/06/2020	Inverugie, Peterhead	NK1048	WCA
<b>Invertebrates</b>					
Bend-bearing Blunt-brow Spider	<i>Silometopus incurvatus</i>	13/11/2011	St. Fergus Links (Dunes)	NK112522	UK BAP
Bend-bearing Blunt-brow Spider	<i>Silometopus incurvatus</i>	13/11/2011	St. Fergus Links (Dunes)	NK112522	UK BAP
Ear moth	<i>Amphipoea oculea</i>	09/09/2018	Scotston, St Fergus	NK111524	UK BAP
Garden tiger	<i>Arctia caja</i>	25/05/2013	St Fergus Dunes	NK1151	UK BAP
Grayling	<i>Hipparchia semele</i>	13/07/2010	St Fergus	NK108528	UK BAP
Grayling	<i>Hipparchia semele</i>	2015	St Fergus	NK113522	UK BAP
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	14/08/2016	St Fergus Beach	NK113522	UK BAP
Small heath	<i>Coenonympha pamphilus</i>	19/09/2015	Scotstown, St. Fergus	NK1052	UK BAP
Small heath	<i>Coenonympha pamphilus</i>	02/08/2015	St Fergus	NK113522	UK BAP
Small heath	<i>Coenonympha pamphilus</i>	14/08/2016	St Fergus Beach	NK113522	UK BAP
Small heath	<i>Coenonympha pamphilus</i>	17/07/2017	St Fergus Links	NK1152	UK BAP
Small heath	<i>Coenonympha pamphilus</i>	02/08/2017	St Fergus Links	NK113522	UK BAP
<b>Amphibians</b>					
Common toad	<i>Bufo bufo</i>	28/03/2011		NK0974050468	UK BAP
Common toad	<i>Bufo bufo</i>	22/03/2011	Kirkton	NK0967850713	UK BAP
<b>Marine mammal</b>					
Common porpoise	<i>Phocoena phocoena</i>	20/02/2011	Scotstown Head	NK1252	UK BAP
Common seal	<i>Phoca vitulina</i>	06/01/2013	Scotstown Head coast	NK1152	UK BAP

EPS – European Protected Species, WCA - The Wildlife and Countryside Act 1981 (as amended), BA1992 - The Protection of Badgers Act 1992 and UKBAP – UK Biodiversity Action Plan



**Table 2: Protected and Notable Species Birds**

Species	Scientific Name	Date of Record	Location	Grid Reference
<b>Schedule 1</b>				
Barn owl	<i>Tyto alba</i>	17/05/2010		NK103484
Common Scoter	<i>Melanitta nigra</i>	21/02/2011	Scotstown Head	NK1151
Common Scoter	<i>Melanitta nigra</i>	11/01/2011	Scotstown Head	NK1151
Greylag Goose	<i>Anser anser</i>	07/03/2010		NK103484
Greylag Goose	<i>Anser anser</i>	08/01/2010		NK103484
Greylag Goose	<i>Anser anser</i>	21/02/2010		NK103484
Greylag Goose	<i>Anser anser</i>	01/09/2010 - 14/09/2010		NK1048
Greylag Goose	<i>Anser anser</i>	01/09/2010 - 14/09/2010		NK103484
Greylag Goose	<i>Anser anser</i>	02/08/2010 - 07/08/2010		NK1048
Greylag Goose	<i>Anser anser</i>	02/08/2010 - 07/08/2010		NK103484
Greylag Goose	<i>Anser anser</i>	06/08/2010		NK1048
Greylag Goose	<i>Anser anser</i>	06/08/2010		NK103484
Hen Harrier	<i>Circus cyaneus</i>	28/01/2010	St Fergus	NK097520
Hen Harrier	<i>Circus cyaneus</i>	05/03/2010	St Fergus	NK0952
Merlin	<i>Falco columbarius</i>	14/01/2010	St Fergus	NK097520
Merlin	<i>Falco columbarius</i>	13/12/2010	Scotstown Head	NK1151
Osprey	<i>Pandion haliaetus</i>	05/08/2010 - 26/08/2010	Inverugie	NK103484

**Birds of Conservation Concern (BoCC) Amber list**

There are field records of 22 species on the BoCC Amber list within 5 km of the Study Area

**Birds of Conservation Concern (BoCC) Red List**

There are field records of 19 species of bird on the BoCC Red list within 5 km of the Study Area

Records are from the last 10 years. If a protected species is not present in the above table, this does not necessarily indicate absence from the search area during this period.

Two SPAs and one proposed SPA were identified within 20km of the Site with qualifying bird features. These are detailed in Table 3 and Figure 1. No other statutory or non-statutory sites were identified within the search area.

**Table 3: Designated Sites within 20km of Site**

Species	Designation	Proximity to Site	Qualifying Features
Loch of Strathbeg	SPA and RAMSAR	Approx. 6.5km to north of the Site	<b>Breeding</b> – sandwich tern ( <i>Sterna sandvicensis</i> ). <b>Non-breeding</b> – goldeneye ( <i>Bucephala clangula</i> ), greylag goose, pink footed goose ( <i>Anser brachyrhynchus</i> ), Svalbard barnacle goose ( <i>Branta leucopsis</i> ), teal ( <i>Anas crecca</i> ), whooper swan ( <i>Cygnus cygnus</i> ) and waterfowl assemblage.
Buchan Ness to Collieston Coast	SPA	Approx. 6.5km to south of the Site	<b>Breeding</b> – Fulmar ( <i>Fulmarus glacialis</i> ), guillemot ( <i>Uria aalge</i> ), herring gull ( <i>Larus argentatus</i> ), kittiwake ( <i>Rissa tridactyla</i> ), shag ( <i>Phalacrocorax aristotelis</i> ) and seabird assemblage
Ythan Estuary, Sands and Forvie and Meikle Loch (extension)	Proposed SPA	Approx. 14.5km to south of the Site	<b>Breeding</b> – Common tern ( <i>Sterna hirundo</i> ), little tern ( <i>Sternula albifrons</i> ) and sandwich tern. <b>Non-breeding</b> – Eider ( <i>Somateria mollissima</i> ), lapwing ( <i>Vanellus vanellus</i> ), Pink-footed goose ( <i>Anser brachyrhynchus</i> ), redshank ( <i>Tringa totanus</i> ) and waterfowl assemblage.

### 3.1.2 Field Surveys

#### Phase 1 Habitat Survey

A list of the habitats identified within the Survey Area, along with the total area they occupy, is shown in Table 4 and Figure 3. Individual habitat types are described in more detail below, with the dominant species present listed along with their location within the Survey Area. Target notes are detailed in Appendix C.

**Table 4: Habitats Present within the Phase 1 Survey Area**

Habitat	Area within Site (ha)	Area within Survey Area (ha)
Broadleaved woodland - plantation A1.1.2	0.02	11.91
Coniferous woodland – plantation A1.2.2	0.02	23.40
Neutral grassland – semi-improved B2.2	5.65	19.35
Improved grassland B4	91.90	158.35
Marshy grassland B5	7.86	18.64
Poor semi-improved grassland B6	2.88	2.90
Standing water G1	0.34	0.98
Running water G2	-	0.70
Dune slack H6.4	-	2.31
Dune grassland H6.5	-	2.58
Open dune H6.8	-	26.58
Costal grassland H8.4	-	1.73
Cultivated/disturbed land – amenity grassland J1.2	-	0.07
Dry ditch J2.6	1.31	4.11
Buildings J3.6	0.01	2.59
Bare ground J4	1.20	3.21
Other habitat J5	-	0.28
Road	-	1.89
Hardstanding	-	0.49
Not accessed	-	0.49
<b>Total</b>	<b>111.19</b>	<b>282.56</b>

The habitat types present within the Site consist predominantly of improved grassland with smaller areas of semi-improved neutral grassland, marshy grassland and poor semi-improved grassland. The following describes each habitat type identified within the Phase 1 Survey Area.

### Broadleaved Plantation Woodland

Broadleaved plantation woodland exists on the northern Site boundary in the northwest of the Survey Area (TN8), with additional stands of this woodland type located along the north and south bank of Cuttie Burn south of the Site boundary. The woodland is comprised predominantly of mature sycamore (*Acer pseudoplatanus*) and birch species (*Betula spp.*), with some ash (*Fraxinus excelsior*), alder (*Alnus glutinosa*) and willow species (*Salix spp.*) scattered throughout. Limited understorey vegetation was noted, with occasional perennial ryegrass (*Lolium perenne*) and common nettle (*Urtica dioica*) present.

### Coniferous Plantation Woodland

Dense stands of young Sitka spruce (*Picea sitchensis*) plantation woodland are located adjacent to the broadleaved plantation woodland outwith the Site boundary in the northwest of the Survey Area, and also along the north and south banks of Cuttie Burn (TN11 and TN20) on the southern Site boundary. Some occasional Scots pine (*Pinus sylvestris*) is also present to the southeast (outwith the Site boundary) within these stands. No understorey exists, and the woodland to the north is heavily managed for rearing pheasant (*Phasianus colchicus*), with bird feeders and hides throughout.

### Semi-improved Neutral Grassland

Semi-improved neutral grassland is present along field margins between areas of improved grassland and the coastal dune habitats on the northeast and east of the Survey Area with an area falling within the northeast of the Site. The dominant species is tufted hairgrass (*Deschampsia cespitosa*).

## Improved Grassland (B4)

Improved grassland comprises the majority of land within the Site (Photo 01). This consists of agricultural land mainly utilised for grazing livestock.



**Photo 01:** Improved grassland is the most prevalent habitat within the Survey Area.



**Photo 02:** Marshy grassland is present to the northwest and in the south of the Site.

## Marshy Grassland

Marshy grassland is present on the northwest outwith the Site boundary, within an area in the south of the Site and just to the north of Cuttie Burn (TN12, Photo 02). This type of grassland was characterised by a high proportion of rush species (*Juncus spp.*).

## Poor Semi-improved Grassland

A small area of poor semi-improved grassland was noted on the southeast of the Survey Area, within the Site, along a field margin. Typical species in this area included common nettle (*Urtica dioica*), dock species (*Rumex spp.*) and hogweed (*Heracleum sphondylium*).

## Standing Water

Five ponds are present within the Survey Area, with only one located within the Site boundary (Pond 4, TN21), comprising large shallow livestock drinking ponds:

- Pond 1 is open and exposed with no shade and no emergent vegetation. Surrounded by well-poached banks of semi-improved grassland. Livestock were present in the vicinity so access was not possible at time of survey (TN5, Photo 03);
- Pond 2 is surrounded by marshy grassland with wading bird footprints abundant around the edge. The water is shallow and dirty, and the pond has a mud substrate and no emergent or submergent vegetation (TN7, Photo 04);
- Pond 3 is a large area of standing water with numerous bird species present. Willow trees are frequently found on the banks, but the pond predominantly is unshaded. A grassy island is located in the centre. The pond is in frequent use by waterfowl and surrounded by semi-improved neutral grassland (TN13, Photo 05);
- Pond 4 is a large area of standing water with numerous bird species present. It is surrounded by marshy grassland, improved grassland and poor semi-improved grassland with a grassy island in the middle. It is shallow with no emergent or submergent vegetation and is unshaded (TN21, Photo 06);
- Pond 5 is shallow, ephemeral in nature, and unshaded. The pond is very exposed with muddy water and heavily poached edges. Submerged and emergent vegetation is present, with algae on the surface (TN22, Photo 07).



**Photo 03:** Pond 1 located approximately 50m outside eastern Site boundary.



**Photo 04:** Pond 2 located approximately 330m outside the western Site boundary.



**Photo 05:** Pond 3 located immediately outside the western Site boundary.



**Photo 06:** Pond 4 located within the south of the site.



**Photo 07:** Pond 5 located approximately 225m outside the eastern Site boundary.

## Running Water

Cuttie Burn is a 0.5 - 1m wide stream which tributes to the sea at the very south of the site (TN19, Photo 08). It has vegetated banks which are steep in places; the dominant plants present being grasses, stinging nettles and dock. The water appears relatively clean, clear and slow flowing. The stream bed comprises sand and stones with low water levels noted at the time of survey.

Numerous drainage channels are present within the Survey Area. Most are dry or with a very low water level and slow flow. The banks are vegetated with grasses, rush species and hairy leaved plantain (TN10, Photo 09).



Photo 08: Cuttie Burn located outside the southern site boundary.



Photo 09: Example of the type of drainage channel.

## Dune Slack

A flat, marshy area of dune slack is located between the dunes and coastal grassland close to St Fergus church (TN 2, Photo 10). Marshy vegetation such as *Juncus* spp. characterise this type of habitat.



Photo 10: Dune slack.

## Dune Grassland

Small areas of grassland with sandy substrate are present within the Survey Area. Rabbit warrens are frequent in these areas.

## Open Dune

Hilly and undulating open dune habitat exists along the eastern margin of the Survey Area. Almost completely covered in vegetation, the dominant plant species is marram grass (*Ammophila arenaria*), (TN1, Photo 11).



Photo 11: Open dune.

### Coastal Grassland

One small patch of coastal grassland is located to the southeast of the Survey Area (TN3). Commonly characterised by maritime plant species, the dominant species noted here was red fescue (*Festuca rubra*).

### Amenity Grassland

Intensively managed and regularly mown amenity grassland consisting of perennial ryegrass is present within the cemetery at St Fergus church.

### Dry Ditch

A number of the drainage channels along the field boundaries were completely dry with banks comprising improved grassland.

### Hedges

Species poor recently trimmed hawthorn hedges line the farm track past North Kirkton Farm. With ash, spruce and other broadleaved trees (TN15, Photo 12).



Photo 12: Typical hedgerow dominated by hawthorn.

### 3.1.3 Protected Species Surveys

Figure 4 shows the location of all field signs recorded within the survey area.

#### Otters

Cuttie Burn, Annachie Burn, drainage channels and in addition the ponds present within the Survey Area, are considered to offer suitable commuting and foraging habitat for otters, with amphibians and fish providing a foraging resource in the ponds. As such, the habitats within the Site offer moderate potential for otter for resting sites, foraging and commuting.

During the 2018 surveys, evidence suggesting the presence of otter was identified at two locations; Cuttie Burn (PSR01, Photo 13) and at a drainage channel close to Annachie Burn (PSR05, Photo 14). The Cuttie Burn is located approximately 50m outside the southern site boundary with the Annachie Burn adjacent to the western Site boundary. Old spraint was found beneath wooden bridges at both locations, with the possibility of both sites having been resting sites historically, although there was no evidence to suggest recent use. Footprints were noted in the muddy substrate on the bank adjacent to the small footbridge on the drainage channel flowing into the Annachie Burn, but they were unable to be confirmed as otter.



**Photo 13:** Old otter spraint located on top of culvert pipe under wooden bridge over Cuttie Burn (PSR01).



**Photo 14:** Two old otter spraints located under wooden footbridge over drainage channel south of Annachie Burn (PSR06).

During the survey completed in 2020 otter spraints were recorded at;

- Cuttie Burn (PSR18) and Pond 4 (PSR19);
- The drainage channel flowing into the Annachie Burn and the Annachie Burn to the west of the Site (PSR's 9, 16 and 17); and
- Pond 1 located on the north eastern site boundary and several spraints recorded within the dune system to the east of the site boundary (PSR's 10-15).

Table 5 and Figure 3 detail the locations of the otter spraints recorded.

**Table 5: Otter Field Signs (2018 and 2020)**

Easting	Northing	Field Sign	Year Recorded
411260	849929	spraint	2018
410713	851305	spraint	2018
410953	851444	spraint	2020
411315	851745	spraint	2020
411284	851787	spraint	2020
411691	851739	spraint	2020
411677	851642	spraint	2020
411687	851617	spraint	2020
411682	851542	spraint	2020

Easting	Northing	Field Sign	Year Recorded
410941	851273	spraint	2020
410937	851209	spraint	2020
411362	849849	spraint	2020
411295	850058	spraint	2020

## Badgers

Confidential Figure 5 shows the location of the badger field signs recorded during the 2018 and 2020 ecological surveys. Evidence confirming the presence of badgers was identified to the west of the Site during the 2018 surveys however no signs of badger activity were recorded in 2020.

Details of the findings are summarised in the confidential Appendix F.

## Bats

While the improved grassland and exposed coastal habitat which dominates the Site is not considered to be optimal foraging habitat for bats, the habitats within the survey area and overall landscape provide a good mosaic of woodland, open areas and water features suitable for roosting, foraging and commuting bats and it is considered that bats will use the linear features within the Site for foraging and commuting. The waterbodies in particular offer foraging habitat for bat species. The linear water features and hedgerows also offer good connectivity to the wider environs. As such it is considered the Site offers moderate foraging and commuting potential.

There was limited potential for roosting bats within the site however buildings which comprise North Kirkton Farm and South Kirkton Farm which are encompassed by the site boundary (Figure 4) could potentially offer bat roosting potential. At the time of writing no access was possible to make a detailed assessment of these properties. The remnants of St Fergus Church located approximately 230m outside the eastern site boundary offers moderate roosting potential (Figure 4, Photo 15). No buildings will be directly impacted by the proposed development.



**Photo 15:** Derelict building of St Fergus Church offers moderate bat roosting potential.

## Water Vole

No evidence of water vole presence was detected during the surveys. The habitats within the Survey Area are deemed to be suitable for the species as the drainage channels identified have steep and densely vegetated banks and the flow of water is slow. The desk study did not return any records of water vole within 2km of the Site and no records of American mink were found; this species being a natural predator of the water vole. Overall, the Site was assessed as having low potential for water voles.



## Reptiles

The Site has been assessed as having the potential to support reptiles such as common lizard (*Zootoca vivipara*). This is due to the mosaic of habitats found on site and within the Survey Area, including the areas of scrub and field margins which offer reptiles potential for foraging, basking and refugia. In addition, defunct farm buildings located at North Kirkton Farm and South Kirkton Farm which are encompassed by the Site comprising collapsed stone walls and piles of rubble offer refuge and hibernation potential for reptile species.

## Incidental Bird Records

The assemblage of birds observed during the 2018 Phase 1 Habitat and protected species surveys was typical of the coastal, farmland and woodland habitats associated with the site and its immediate surroundings. The majority of species observed during the 2018 site visit were common and widespread species such as wren (*Troglodytes troglodytes*), chaffinch (*Fringilla coelebs*), carrion crow (*Corvus corone*), wood pigeon (*Columba palumbus*), greater black-backed gull (*Larus marinus*), herring gull, oystercatcher (*Haematopus ostralegus*), skylark (*Alauda arvensis*), pheasant and common buzzard (*Buteo buteo*). The most notable species observed was the red-listed species lapwing. Loafing and foraging within and around Ponds 3, 4 and 5 were mute swans (*Cygnus olor*), grey heron (*Ardea cinerea*), coot (*Fulica atra*), mallard (*Anas platyrhynchos*), teal (*Anas crecca*), goosander (*Mergus merganser*) and a flock of approximately 200 pink-footed geese.

## Breeding Bird Surveys

There is a potential for nesting birds in the open areas of grassland, hedgerows and the woodland found on the Site. Breeding bird surveys were undertaken in the spring/summer of 2018 with a total of four survey visits taking place. The survey dates and times are presented in Table 1:

Table 6 presents summarised details of the breeding bird survey effort.

**Table 6: Breeding Bird Survey Dates and Times**

Month	Date	Surveyor	Start Time	End Time	Duration (hh:mm)
April	26/04/2018	D Devonport	05:45	13:15	7:30
May	15/05/2018	D Devonport	05:15	13:15	8:00
June	21/06/2018	D Devonport	04:30	12:00	7:30
July	31/07/2018	D Devonport	04:30	12:30	8:00

During the breeding bird survey, a total of 46 species were recorded during the breeding bird surveys, of which 15 were recorded as breeding. The 15 species totalled 54 breeding territories across the Survey Area. All breeding species and approximate territory locations are identified in Figure 6. Table 7 summarises the minimum number of breeding territories identified for each species along with their legal protection and/or conservation status. The full list of species recorded and their assumed breeding status within the survey area is presented in Appendix E, Table E1.

**Table 7: Breeding Territories and Conservation Status**

Species	Protection and Conservation Concern			Birds of Conservation Concern 4	Minimum No. of Territories	
	Annex 1 of the EU Birds Directive	Schedule 1 of WCA	SBL		Site	Survey Buffer
Blue tit				Green		1
Buzzard				Green	1	
Chaffinch				Green		6
Chiffchaff				Green		2
Coot				Green	1	
Corn bunting			Yes	Red		2
Lapwing				Red	3	
Oystercatcher				Amber	2	3

Species	Protection and Conservation Concern			Minimum No. of Territories		
	Annex 1 of the EU Birds Directive	Schedule 1 of WCA	SBL	Birds of Conservation Concern 4	Site	Survey Buffer
Reed bunting			Yes	Amber		1
Robin				Green		3
Sedge warbler				Green		2
Skylark			Yes	Red	7	9
Whitethroat				Green	1	1
Willow warbler				Amber	1	5
Yellowhammer			Yes	Red	3	

## Goose Survey

Targeted goose surveys were undertaken in the winter/spring of 2018 with a total of six survey visits taking place. The survey dates and times are presented in Table 8 and the results of the field surveys are presented in Table 9 and Figure 7.

**Table 8: Goose Survey Dates and Times**

Month	Date	Surveyor	Start Time	End Time	Duration (hh:mm)
February	17/02/2018	J Homer	09:00	15:00	6:00
February	27/02/2018	D Devonport	08:30	15:30	6:30
March	12/03/2018	D Devonport	07:00	14:50	7:50
March	23/03/2018	D Devonport	07:00	15:00	8:00
April	06/04/2018	D Devonport	06:30	14:15	7:45
April	21/04/2018	D Devonport	06:10	14:30	7:20

No goose activity was recorded in seven of the fields within the Site. Two fields were found to have goose droppings present but no geese were recorded during the visit to allow confirmation of species present. Pink-footed geese were recorded in the remaining five fields within the Site boundary. Peak numbers were recorded of 2,494 pink footed geese on 23/03/21, with the majority on this occasion relating to a single flock of 2000 geese in field no. 27 in the west of the Site. Excluding this single count of 2000, peak counts for individual fields for the remaining surveys ranged from 3 to 508 within the site boundary.

**Table 9: Goose Field Survey Results**

Date	Species	Total Count	Field Numbers	On Site or in Wider 500m Survey Area	Goose Droppings Present (inc. field numbers)
17/02/2018	Pink-footed goose	2,050	5, 8, 10, 12, 16	Both	Yes (10, 13, 19, 22, 27-29, 32, 35, 37, 39, 41, 43, 44, 46, 47, 48, 53, 63)
27/02/2018	Pink-footed goose	181	10, 28, 53	Wider survey area only	Yes (15, 39)
12/03/2018	Pink-footed goose	700	5	Wider survey area only	Yes (10, 19, 43)
	Greylag goose	10	39	On site	
	Teal	14	5	Wider survey area only	
23/03/2018	Pink-footed goose	2,494	5, 10, 12, 27, 28	Both	Yes (18, 19, 44, 53, 54)
	Teal	6	5	Wider survey area only	
06/04/2018	Pink-footed goose	1,311	5, 10, 19, 43, 47	Both	Yes (53)
	Teal	45	5, 56	Both	
21/04/2018	Pink-footed goose	220	5	Wider survey area only	Yes (18, 41)
	Barnacle goose	2	5	Wider survey area only	
	Teal	65	5, 13, 56	Both	

## 4 IMPACT ASSESSEMENT

### 4.1 Assessment of Effects

Sections 2 and 3 above explain the methods used to identify and assess ecological features within the site (i.e. the baseline). This following section explains how the significance of effects on these ecological features are assessed. Assessing the significance of effects on ecological interests is a staged process, drawing on Chartered Institute for Ecology and Environmental Management's (CIEEM) 2018 guidance (CIEEM, 2018).

#### 4.1.1 Assigning the Importance of Ecological Features of Interests

Determining the conservation importance of ecological features of interest within the Site is the first step in the assessment process and is undertaken in a systematic way using criteria that determine whether it is of international, national, regional, local or negligible conservation value. The term for the ecological features which may be affected at the site is 'Important Ecological Features' (or IEFs).

The conservation status of a species or habitat is based primarily on its UK status, modified by its regional status. The scheme uses a two-dimensional matrix, using UK status and regional status as the two dimensions, to give a species' resultant conservation status in a particular area.

The national conservation status of species and habitats in the UK can be divided into five categories<sup>3</sup>; these are:

- species and habitats given special protection under EU legislation updated to Conservation of Habitats and Species (Amendment) (EU Exit) regulations 2019 as listed on the EU Habitats Directive;
- species and habitats given special protection under UK legislation;
- species and habitats of serious conservation concern; Scottish Biodiversity List (SBL) Priority species;
- species and habitats of some conservation concern listed on Local Biodiversity Action Plan (LBAP); and
- species and habitats for which there is little or no conservation concern; species common and widespread throughout the UK.

The regional conservation status of IEFs can be divided into three categories:

- rare in the region and/or LBAP Priority Species; species for which a Species Action Plan recommends safeguarding of all sites and species with a need to protect all populations above a certain size;
- uncommon or patchily distributed in the region; and
- common and/or widespread in the region.

The resultant conservation value of a species or habitats for the site depends on the interaction between its UK conservation status and its conservation status in south west Scotland. Table 10 sets out the resultant conservation status of species and habitats. Note that the categories shown may be modified according to the national or regional circumstances of a particular species. In Table 10, "National" refers to the whole of the UK; "Regional" refers to north east Scotland; and "Local" refers to the site and immediate environs.

**Table 10: The Resultant Conservation Value of Protected Species and Habitats**

National Conservation Status	Regional Conservation Status		
	Rare	Uncommon	Common
EU Legislative Protection	International/ National	National	Regional
UK Legislative Protection	National	National	Regional
SBL Listed	National	National/Regional	Regional/Local
LBAP Listed	Regional	Regional	Local

<sup>3</sup> Note: Species or habitats in a sixth category, International Union for Conservation of Nature (IUCN) globally- threatened species, are unlikely to occur on any proposed UK development site, but if they did would be considered to be of International status irrespective of their regional status.

National Conservation Status	Regional Conservation Status		
	Rare	Uncommon	Common
Common/widespread	Regional	Local	Local

### 4.1.2 Magnitude of Impact

The potential impacts on each IEF are determined through understanding how each of these responds to the proposed scope of works. The elements used to define the scale of the effect include determining:

- The potential duration, whether short-term (< 5 years), medium-term (5 - 15 years) or long-term (15 – 25 years or longer);
- Timing and frequency, whether the impacts will take place during a sensitive period, or the frequency will alter the impacts;
- Reversibility, whether the impacts will be reversible in the short to medium term;
- Confidence in predictions, whether the predicted impact is certain/near certain (>95%), probable (50% - 95%), unlikely (5% - 50%), or extremely unlikely (<5%) to occur;
- Whether the impact will potentially affect the long-term viability of the species’ population; and
- Whether there are any cumulative impacts that may affect the long-term integrity of the ecosystem(s) at the site.

Any potential cumulative impacts arising from other proposals within a distance that may affect the ecological resources associated with the site or multi-faceted impacts on any single ecological feature are also considered.

### 4.1.3 Significance of Effect

The significance of the potential effects on each IEF is determined by considering their conservation value and the degree to which they may be affected (the impact magnitude) by the proposed scope of works. These are described as Major, Moderate, Minor and Negligible.

Effects can be either adverse or beneficial. The two extremes are:

- Major adverse effects on a feature of at least national nature conservation value. In this case, mitigation measures to offset the impact would be required; and
- Major benefits for a feature or population.

Effects or residual effects are considered to be significant under the Environmental Impact Assessment (Scotland) Regulations 2000 (EIA Regulations) if they are at a level of Moderate or Major (i.e. “a likely significant effect”). Effects that are neutral, negligible or minor are not considered significant with respect to the EIA Regulations.

### 4.1.4 Likely Impacts

The construction, operation and decommissioning phases of the proposed Kirkton Solar PV and energy storage facility have the potential to cause several key impacts that could affect various ecological features across the Survey Area and in neighbouring areas. Decommissioning impacts are considered to be the same or less than construction. Key Impacts are listed below:

- Where new areas of hardstanding and buildings are to be constructed, habitats would be lost for the operational life of the project through direct impact of the construction works and infrastructure. These areas would be re-instated at the time of decommissioning in accordance with a programme of works to be agreed with the authorities at that time. These areas are also minimal within the context of the site. Under the footprint of the solar PV panels, there will be habitat change caused by shading from the panels and changes in maintenance regimes. This may also result in a reduction of habitat connectivity for protected species for foraging and commuting;
- During the construction phase disturbance, such as noise, light and visual disturbance would occur across the Site which may affect fauna using the area. Impacts associated with construction will be

temporary. To a lesser extent this may occur during maintenance works during the operational phase though maintenance activities will be limited to occasional visits to the Site, no more than once per week by a van. It is anticipated the operational disturbance impacts will be equivalent to or less than those relating to the current farming practices. Accordingly such impacts are expected to be negligible;

- Increased traffic may lead to fauna fatalities during construction. During operation there will be less traffic travelling through and to the site than that associated with existing farming activities;
- Water pollution such as sedimentation and pollution from surface run off could occur during the construction and decommissioning period. To a lesser extent pollution may occur during maintenance works during the operational phase, although this would be very unlikely as cleaning of the solar panels is done without the use of chemicals and is therefore likely to be restricted to vehicle/equipment failure;
- Collision risk with solar panels by bird species where species mistake the reflective surfaces for water bodies. Natural England note that due to the lack of fast-moving parts and high-altitude structures in solar farms, it would intuitively suggest that the potential collision risk for flying animals is lower for solar farms than it is for wind farms<sup>4</sup>. Grid connection is also a key consideration for collision risk to birds resulting from energy projects, with cases of birds colliding with overhead lines<sup>5</sup>.

Collision with solar panels by bat species causing injury or death has been excluded as an impact as data is currently lacking to inform the level of impact, if any, this may have on bat species (Harrison *et al.* 2016).

### 4.1.5 Important Ecological Features (IEFs)

Potential ecological receptors that have been flagged during the desk studies and field work comprise designated sites in respect to wintering pink-footed geese, habitats, otters, water voles, badgers, bats, reptiles and breeding birds. Some grassland habitats would be lost due to proposed infrastructure. The majority of the solar panels will be placed on existing open fields comprising improved grassland which will retain grazing rights for sheep on the underlying grassland habitats following completion of the development. Potential impacts which might affect water vole and otter are limited to the small loss of suitable foraging, commuting and refugia habitats, water pollution and from disturbance during construction. Badger, bats, reptiles and breeding birds and pink-footed geese may be affected through disturbance from construction activities which may similarly affect their use of suitable habitats for foraging and refugia. There is also the potential for damage to reptile hibernacula habitats during construction.

However:

- No evidence of water voles were found during the surveys. Although some areas of suitable habitat were identified within the Survey Area these are deemed to be of low potential for water voles. Therefore, this species is not considered an IEF and are not assessed further in this chapter, with the caveat that they should be included in pre-construction surveys and all watercourses and ponds should be buffered by 10 m as a precaution due to surveys being undertaken out with the optimal survey season for this species; and
- The desk study did not identify the presence of reptiles in the local area and suitable habitat for reptiles within the site was limited and only suitable for foraging. As such this species has been scoped out on the proviso that if any new potential refugia and/or hibernacula features for reptiles are identified during the pre-construction surveys which may be directly impacted by the proposed works, these should be dismantled under the supervision of a suitably experienced ecologist. This should be undertaken during the active period (April – October) and relocated and recreated in an appropriate area in the vicinity of suitable habitat following the guidance provided in Edgar *et al.* (2010).

The following IEFs have been identified for the Site and are considered further:

- Protected sites (in respect to pink-footed geese);
- Habitats;
- Protected species: otter, badger, bats and breeding birds.

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<sup>4</sup> [www.gov.uk/natural-england](http://www.gov.uk/natural-england)Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012) (2017).

<sup>5</sup> SNH (2016). Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. SNH. Battleby.

### 4.1.6 Development Design Mitigation

The measures set out below will be implemented as part of the development and constitute mitigation embedded in the design. As such, any assessment of effects presented below assumes the implementation of the embedded mitigation. A summary of embedded mitigation is set out below:

- A 30m buffer around all protected species potential resting sites (i.e. potential bat roosts, badger setts, and otter couches);
- A 10m buffer from all watercourses/drains/waterbodies;
- Installation of a security fence at least 5m from the boundary which will ensure the retention of a 5m ecological buffer comprised of grassland habitats around the boundary;
- The security fence will be raised 150mm off the ground to allow continued unrestricted badger/otter access across the Site;
- No lighting is proposed at the Site and all CCTV installed will use infra-red technology which will prevent light disturbance issues in relation to IEF's;
- All existing hedgerows and tree lines to be retained and buffered by at least 5m;
- Planting of approximately 1271m of hedgerow comprising native species at locations within and around the perimeter of the site; and
- Planting of approximately 6959m of mitigation screen planting of native origin comprising tree and shrub species around the perimeter and within the Site.

### 4.1.7 Limitations to the Assessment

As with any environmental assessment there will be elements of uncertainty; these are identified and reported on along with the measures taken to reduce these. Any assumptions made include commentary as to the likely extent that such difficulties affect the conclusions.

The level of certainty of the magnitude of impact predictions vary depending upon a range of parameters. For some elements, e.g. direct habitat-take, it is relatively straightforward to assess and quantify the area of habitat that will likely be lost within the site, and therefore quantify potential effects of this land-take. The current assessment approach is based on 'likely' effects. Adopting a 'worst case' scenario approach for dealing with uncertainty is not advocated within Planning Advice Note (PAN) 1/2013 (Scottish Government, 2013). A worst case impact is not necessarily the most likely outcome.

The main limitations in this assessment are common to most ecological assessments. Firstly, surveys undertaken were based on sampling techniques so that the results give an indication of numbers and activities of species at the particular times that surveys were carried out. Species occurrence changes over time and therefore the results presented in this report are snapshots in time. No gaps were identified in the baseline survey data that would prevent assessments in line with the requirements of the EIA Regulations to be undertaken. Although this is not taken to be an EIA project, the Regulations and requirements therein are referred to as a guide to inform a robust assessment.

Secondly, putting survey results into a wider geographical context is difficult because most species have not been systematically surveyed beyond the site. Thus, defining a population as locally or regionally important is difficult because local or regional population estimates do not exist for most taxa and habitats. Wherever such uncertainty exists, professional judgement and published evidence has been used and populations in the site have been defined upwards to their highest potential level of geographical/ecological importance.

## 4.2 Effects Evaluation of Important Ecological Features

### 4.2.1 Protected Sites

Full details of the potential impacts the development will have on SPA's in relation to ornithological receptors are discussed in Kirkton Solar PV and Energy Storage: Habitats Regulations Appraisal Report (HRA Report) (RPS 2021) which accompanies the application for consent. No other protected sites were identified within the zone of influence of the development. Only the impacts on pink-footed geese were assessed and all

other SPA species were scoped out of the assessment. The findings of the HRA Report are summarised below. The conservation value for pink-footed geese linked to SPA populations is set at regional.

### Construction and Decommissioning Effects

The scope of the proposed works to construct Kirkton Solar PV and energy storage facility has the potential to have the following impacts on pink-footed geese either directly or indirectly during construction through:

- Permanent loss of foraging habitat: While no SPA's will directly be impacted by the development, the results of the desk study and field survey work show pink-footed geese regularly use the habitats within the site and surrounding area for foraging and the distance between the site and SPA's lies well within the 20km core foraging range for this wintering species;
- Disturbance to foraging birds: In the absence of mitigation, construction within the winter foraging period (mid-September to mid-May inclusive) has the potential to disturb foraging pink-footed goose.

In the absence of mitigation measures, the construction work will have a minor long-term adverse effect on wintering pink-footed geese at a regional level.

### Operational Effects

The operation of Kirkton Solar PV and energy storage facility has the potential to have the following impacts on pink-footed geese either directly or indirectly:

- Collision risk: As highlighted in correspondence with NatureScot there is the potential for birds to collide with solar panels due to glare given off from the sun causing their surfaces to be mistaken for waterbodies; and
- Disturbance caused by noise of maintenance activities.

In the absence of mitigation measures, the operation of the solar PV farm will have a minor long-term adverse effect on wintering pink-footed geese at a regional level.

### 4.2.2 Habitats

All habitat impacts have been assessed for a local level as no protected or notable habitats were identified on Site. The main habitats to undergo change within the Site consisted of improved grassland (B4) and a small area of marshy grassland (B5) located in the south of the Site only. Other grassland habitats under the footprint of the development include neutral semi-improved and poor semi-improved grassland. The solar panels would be located within the existing fields and the existing grassland habitats will largely be retained.

The existing network of hedgerows, ditches and waterbodies would be retained.

### Construction and Decommissioning Effects

The construction of the solar PV farm and associated infrastructure would cause long term loss of habitats beneath the footprint of the access tracks, battery storage facility and any associated hardstanding. Below the solar panels the existing habitat will be retained but will undergo change relating to disturbance during construction and shading of the ground by the PV panels. Table 11 summarises approximate areas of habitats found in the Site that will be lost or undergo change during the construction phase both permanently and temporarily.

**Table 11: Predicted Permanent Habitat Loss and Habitat Change**

Phase 1 Habitat Type	Site (ha)	Permanent Habitat Loss (ha)	Habitat Change (ha)	% of total habitat in Study Area Boundary impacted	% of impacted habitats lost
Broadleaved woodland - plantation A1.1.2	0.02	-	-	-	-
Coniferous woodland – plantation A1.2.2	0.02	-	-	-	-

Phase 1 Habitat Type	Site (ha)	Permanent Habitat Loss (ha)	Habitat Change (ha)	% of total habitat in Study Area Boundary impacted	% of impacted habitats lost
Neutral grassland – semi-improved B2.2	5.65	0.15	2.00	1.93	0.13
Improved grassland B4	91.90	2.02	28.2	27.18	1.82
Marshy grassland B5	7.86	0.18	3.15	2.99	0.16
Poor semi-improved grassland B6	2.88	-	0.18	0.16	-
Standing water G1	0.34	-	-	-	-
Dry ditch J2.6	1.31	0.02	-	0.02	0.02
Buildings J3.6	0.01	-	-	-	-
Bare ground J4	1.20	0.01	-	0.01	0.01
<b>Total</b>	<b>111.19</b>	<b>2.38</b>	<b>33.53</b>	<b>32.30</b>	<b>2.14</b>

The total area of habitat lost would be 2.38ha, representing 2.14% of all habitats on the Site. The majority of the loss relates to grassland habitats on site, with no loss of woodland habitats or standing water. The habitat change on site will also impact grassland habitats, though they will still be retained as grassland habitats under the solar panels. It is considered that the construction of the solar PV farm will have a minor long-term adverse effect on grassland habitats at a local level.

Approximately 1271m of native hedgerow and 6959m of mitigation screening of native origin comprising tree and shrub species will be planted across the Site during construction resulting in a net gain in area coverage for scrub and woodland habitats. It is considered that the construction of the solar PV farm will have a moderate long-term beneficial effect on woodland and scrub habitats at a local level.

### 4.2.3 Otter

Otter signs were present throughout the Survey Area and on the pond in the south of the Site. No resting sites were identified in the Site or Survey Area; however, the area is suitable for foraging and commuting otters. The findings suggest that otters are accessing the Site from the coast as there was limited otter resting site potential within the Site. Otters are generally widespread in the region and are protected by the recently amended EU level legislation. Considering this, the conservation value has been set at regional level.

### Construction and Decommissioning Effects

The scope of the proposed works to construct Kirkton Solar PV and energy storage facility has the potential to have the following impacts on otters either directly or indirectly during construction:

- Physical injury or death of individuals: Due to movement of construction traffic;
- Loss of foraging resource: Damage to watercourses by surface water runoff or pollution; temporary loss of feeding sites i.e. waterbodies on Site due to physical barriers, noise and light pollution during construction; and
- Habitat connectivity: Temporary loss of commuting corridors due to physical barriers, noise and light pollution during construction.

In the absence of mitigation measures, the construction work will have a moderate short-term adverse effect on otters at a regional level.

### Operational Effects

The scope of works has the potential to have the following impacts on otters either directly or indirectly during operation:

- Physical injury or death of individuals: Due to movement of operational traffic; and
- Loss of foraging resource: Damage to watercourses by pollution and disturbance to foraging areas caused by noise of maintenance activities.



In the absence of mitigation measures, the operation of the solar PV farm will have a minor short-term adverse effect on otters at a regional level.

### 4.2.4 Badger

Signs of badger activity were recorded with a main sett identified within the Survey Area, outwith the Site boundary. This species is relatively common and is protected at UK legislation level. As such the conservation value has been set at Local.

#### Construction and Decommissioning Effects

The construction of the solar PV farm has the potential to have the following impacts on badgers either directly or indirectly during construction:

- Physical injury or death of individuals: Due to movement of construction traffic;
- Loss of foraging resource: Damage to habitats by surface water runoff or pollution and temporary loss of feeding sites on Site due to physical barriers, noise and light pollution during construction; and
- Habitat connectivity: Temporary loss of commuting corridors due to physical barriers, noise and light pollution during construction; and creation of approximately 1271m of hedgerow and 6959m of woodland/scrub screen planting across the Site.

In the absence of mitigation measures, the construction work will have a minor short-term adverse effect and a minor long-term beneficial effect on badgers at a local level.

#### Operational Effects

The development has the potential to have the following impacts on badgers either directly or indirectly during operation:

- Physical injury or death of individuals: Due to movement of operational traffic; and
- Loss of foraging resource: Damage to habitats by pollution and disturbance to foraging areas caused by noise of maintenance activities.

In the absence of mitigation measures, the operation of the solar PV farm will have a negligible short-term adverse effect on badgers species at a local level.

### 4.2.5 Bats

The desk study did not identify any bat species within the local area; however, the Site does contain habitats that would support foraging and commuting bats. Considering this the conservation value for this IEF is set at local.

#### Construction and Decommissioning Effects

The construction of the solar PV farm has the potential to have the following impacts on bats either directly or indirectly during construction:

- Loss of foraging resource: Damage to habitats by surface water runoff or pollution and temporary loss of feeding sites on Site due to physical barriers, noise and light pollution during construction; and
- Habitat connectivity: Temporary loss of commuting corridors due to physical barriers, noise and light pollution during construction; and creation of approximately 1271m of hedgerow and 6959m of woodland/scrub screen planting across the Site.

In the absence of mitigation measures, the construction work will have a minor short-term adverse effect and a minor long-term beneficial effect on bats at a local level.

## Operational Effects

The development has the potential to have the following impacts on bats either directly or indirectly during operation:

- Loss of foraging resource: Damage to foraging habitats caused by pollution and temporary disturbance caused by noise of maintenance activities.

In the absence of mitigation measures, the operation of the solar PV farm will have a negligible long-term adverse effect on bats at a local level.

### 4.2.6 Breeding Birds

The assemblage of breeding birds identified during the surveys did not include any Annex 1 or Schedule 1 species. Of the eight species recorded breeding within the Site, two were Amber-listed and three were Red-listed. Considering this, and the habitats in the Survey Area, the conservation value for this receptor is set at local.

## Construction and Decommissioning Effects

The construction of the solar PV farm has the potential to have the following impacts on breeding birds either directly or indirectly during construction:

- Loss of breeding habitat: Damage to habitats by surface water runoff or pollution and temporary loss of breeding habitat on Site due to physical barriers, noise and light pollution during construction; and
- Creation of breeding habitat: Planting of approximately 1271m of hedgerow and 6959m of woodland/scrub screen planting across the Site.

In the absence of mitigation measures, the construction work will have a moderate short-term adverse effect on breeding birds and a minor long-term beneficial effect at a local level.

## Operational Effects

The development has the potential to have the following impacts on breeding birds either directly or indirectly during operation:

- Disturbance caused by noise of maintenance activities.

In the absence of mitigation measures, the operation of the solar PV farm will have a negligible short-term adverse effect on breeding birds at a local level.

## 4.3 Proposed Mitigation and Enhancement

The following mitigation and enhancement measures are to be undertaken to reduce the impacts of the proposed Kirkton Solar PV and storage facility on the receptors set out above. The enhancement measures will be outlined in detail in a Habitat Management Plan which can be conditioned as part of any decision to consent the application.

### 4.3.1 Mitigation

- An Ecological Clerk of Works (ECoW) will be employed to confirm that all works are undertaken in line with the mitigation outlined in this report;
- Where any person on site identifies a burrow, resting site or a sighting of what they believe to be of a protected species (i.e. water vole, badger, otter, pine marten, red squirrel, nesting birds, etc) within the designated working area, they shall notify the ECoW immediately. If these signs are present within a working area, works will be stopped immediately until further information can be gathered;
- Open excavations will be covered at the end of each working day. Any trenches or pits will be inspected each morning to ensure that no animals have become trapped overnight. Should a trapped animal be

encountered the ECoW will be contacted immediately for further advice. NatureScot will be contacted if necessary;

- Open pipes will be capped at the end of each day to prevent animals entering them and potentially becoming trapped;
- All machinery will be checked each morning for the presence of animals in the unlikely event that an individual may be resting beneath or within them;
- Implementing a speed limit on Site to reduce the likelihood of injury or death of animals due to the movement of construction traffic;
- Limit night-time, dawn and dusk working but where artificial lighting is required, where practical use deflectors or angle lighting away from water course, hedgerows and treelines to minimise disturbance to nocturnal species;
- In the unlikely event of a protected species being injured or killed, or a burrow being accidentally damaged, the ECoW will be contacted immediately. They will attend the Site and make a written and photographic record, including details of the time, location and personnel involved in the incident. This information will be supplied to NatureScot within 24 hours;
- Preconstruction surveys will be undertaken in advance of construction to determine if any protected species licenses will be required. If the preconstruction checks identify potential refugia and/or hibernacula features for reptiles in the works area, these should be dismantled under the supervision of a suitably experienced ecologist during the active reptile period (April to October, inclusive), relocated and recreated in an appropriate area in the vicinity of suitable habitat following the guidance provided in Edgar et al. (2010);
- Hedge planting and gapping up around the Site will be carried out and maintained in the long-term, in line with good practice guidance. This will buffer noise and visual disturbance, minimising operational disturbance to geese foraging in adjacent fields and the potential for collision risk for geese with the solar panels;
- The construction period for the project is predicted to be 16 weeks. Construction works will be timed to avoid as much of the wintering geese period (mid-September to mid-May) as possible, thus minimising the potential for disturbance to foraging pink-footed goose; and
- New fence lines without an associated hedgerow will be demarcated to increase visibility and reduce collision risk for geese.

### 4.3.2 Enhancement

- Implement of 5m (minimum) ecological buffer zone around the solar PV farm. This area will be seeded with a species-rich, neutral grass mix to increase floral diversity and increase the overall biodiversity of the buffers;
- Bug/bee hotels to be installed in suitable locations to be determined by an experienced ecologist around the site;
- Bat boxes to be erected in suitable locations to be determined by an experienced ecologist on trees/in woodland within the applicants control on the Site; and
- Bird boxes to be erected in suitable locations to be determined by an experienced ecologist on trees/in woodland within the applicants control on the Site.

## 4.4 Residual Effects

Residual effects have been assessed post-mitigation for those habitats and species that have been scoped into the assessment (defined as IEFs). Prior to mitigation, moderate adverse effects were identified on otter and breeding birds during the Construction and decommissioning phase of the development. Consequently, the implementation of the mitigation detailed in Section 4.3 will reduce the effects of the development to IEFs throughout all phases of its lifespan and no significant residual negative effects are predicted. Enhancement measures, particularly the committed native hedgerow planting will have a moderate beneficial effect on woodland and scrub habitats. Similarly, the in-design mitigation and enhancement measures outlined in

section 4.1.6 and 4.3, these are predicted to have a long term beneficial effects to a number of IEFs, namely badger, bats, and breeding birds.

## 5 REFERENCES

- Amphibian and Reptile Groups of the United Kingdom (ARG UK) (2010). Great Crested Newt Habitat Suitability Index. ARG UK Advice Note 5. May 2010.
- Bang, P & Dahlstrøm, P (2001). Animal Tracks and Signs. Oxford University Press, Oxford.
- Barn owl Trust (2015). Barn Owls and Rural Planning Applications - a Guide.
- Bibby C., Burgess N., Hill D. and Mustoe S. (2007). Bird Census Techniques, 2nd Edition, Academic Press, London.
- Brown, A. F. & Shepherd, K. B. 1993. A method for censusing upland breeding waders. Bird Study. 40: 189-195.
- Calladine, J., Garner, G., Wernham, C. & Thiel, A. (2009). The influence of survey frequency on population estimates of moorland breeding birds. Bird Study, Volume 56, Issue 3.
- CarbonFree Developments (2010a). Earlseat Wind Farm Environmental Statement, Vol 1. Prepared by RPS September 2010.
- CarbonFree Developments (2010b). Earlseat Wind Farm Environmental Statement Technical Appendices, Vol. 2. Prepared by RPS September 2010.
- CarbonFree Developments (2010c). Earlseat Wind Farm Environmental Statement Confidential Appendix. Prepared by RPS September 2010.
- CIEEM (2013). *Guidelines for Preliminary Ecological Appraisal*. Technical Guidance Series.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746.
- Channel Islands and Isle of Man. British Birds 108: 708-746. English Nature, (2001). Great Crested Newt Mitigation Guidelines.
- Gilbert, G., Gibbons, D.W. & Evans, J. (1998) Bird Monitoring Methods. RSPB, Sandy.
- Gurnell J, Lurz P and Pepper H (2009). Practical Techniques for Surveying and Monitoring Squirrels. Forestry Commission, Surrey.
- Hall Construction Services Ltd. (2009). Earlseat Extension Opencast Coal Site Environmental Statement. March 2009.
- Hardey, J., Crick, H.Q.P., Wernham, C., Riley, H., Etheridge, B., Thompson, D. (2013). Raptors a field guide for surveys and monitoring (3rd Edition). The Stationery Office Edinburgh.
- Harris, S. & Yalden, D.W. (2008) Mammals of the British Isles, 4th Edn. The Mammal Society. Southampton.
- Highways Agency (2001). Design Manual for Roads and Bridges, Volume 10, Section 4, Part 2: Mitigation Against the Effects on Badgers. (HA59/92).
- JNCC, (2010), Handbook for Phase 1 habitat survey - a technique for environmental audit, ISBN 0 86139 636 7.
- Mitchell, C and Hearn, R (2004) Pink-footed goose *Anser brachyrhynchus* (Greenland/Iceland population) in Britain (1960/61-1999/2000). Waterbird Review Series, The Wildfowl and Wetlands Trust/Joint Nature Conservation Committee). Slimbridge.
- Mitchell, C. 2008. Status and distribution of Icelandic-breeding geese: results of the 2007 international census. Wildfowl & Wetlands Trust Report, Slimbridge.
- Mitchell, C. & K. Brides. 2017. Status and distribution of Icelandic-breeding geese: results of the 2016 international census. Wildfowl & Wetlands Trust Report, Slimbridge.

- Natural England (2011). Badgers and Development, a guide to best practice and licensing. Natural England Interim Guidance Document (Revised 12/11).
- Northern Ecological Services (2008). Ecological Impact Assessment of the proposed Extension to Earlseat OCCS, Kirkcaldy. Prepared for JWH Ross and Co. Ltd., November 2008.
- Neal, E. & Cheeseman, C. (1996). Badgers. Poyser Natural History, London.
- Oldham R.S., Keeble J., Swan M.J.S & Jeffcote M. (2000). Evaluating *the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.
- O'Brien, C.D. and Hall, J.E., (2012). A hypothesis to explain the distribution of the great crested newt *Triturus cristatus* in the Highlands of Scotland. *Herpetological Bulletin*, 119, pp.9-14.
- Roper, T. (2010). Badger. Harper Collins, London.
- Sellars, C. 2010. Habitat Suitability Index Scores as an Indicator of the Presence of Great Crested Newts. In In Practice, Bulletin of the Institute of Ecology and Environmental Management (IEEM), Number 69, September 2010.
- Shawyer, C. R. 2011. Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.
- SNH (2001). Scotland's Wildlife: Badgers and Development. Available at: <http://www.snh.org.uk/pdfs/publications/wildlife/badger.pdf>.
- SNH (2008). Otter and Development. SNH Scottish Wildlife Series. SNH Online Guidance, available at: <http://www.snh.org.uk/publications/on-line/wildlife/otters/planning.asp>.
- SNH (2014). Recommended bird survey methods to inform impact assessment of onshore wind farms, available from: <http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/windfarm-impacts-on-birds-guidance/>.
- Strachan and Moorhouse (2011). Water Vole Conservation Handbook (3rd Edition). The Wildlife Conservation Research Unit, 2011.
- Toms, M. (2014). Owls. The New Naturalist Library. Harper Collins, London.

## Figures

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Figure 2: Site Boundary and Survey Areas

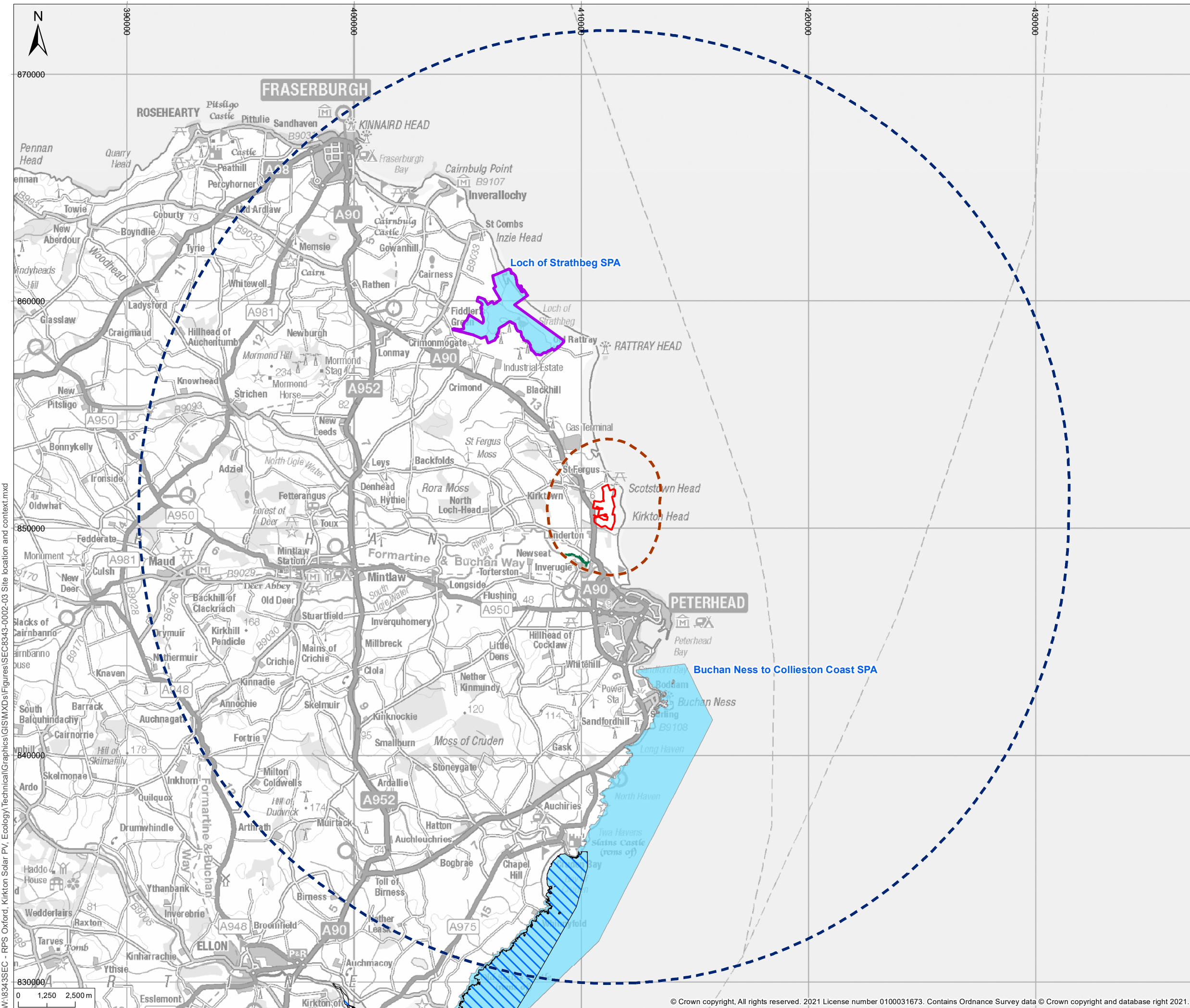
Figure 3: Phase 1 Habitat Survey Results

Figure 4: Protected Species Survey Results

Figure 5: Confidential Badger Records

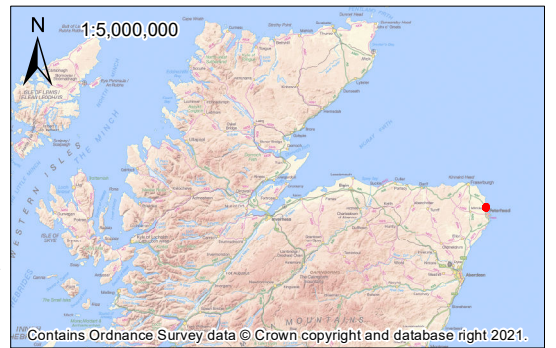
Figure 6: Breeding Bird Survey Territories (2018)

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- Legend**
- Planning boundary
  - 2 km search area (ecological designations)
  - 20 km search area
  - Special Protection Area (SPA)
  - Ythan Estuary, Sands of Forvie and Meikle Loch (extension) Proposed Special Protection Area (pSPA)
  - Loch of Strathbeg Ramsar
  - Ancient Woodland



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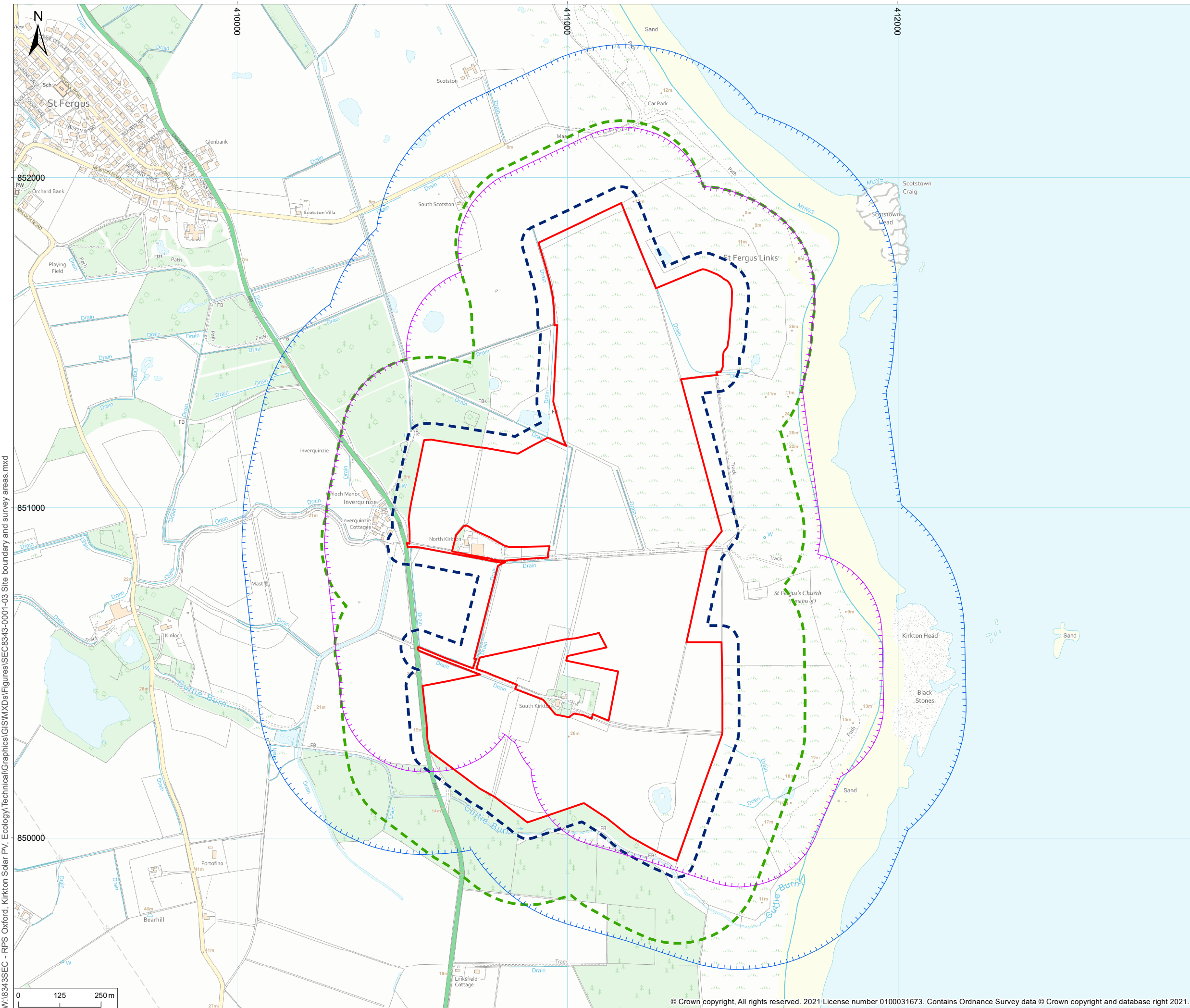
**Client** Elgin Energy EsCo Ltd  
**Project** Kirkton Solar PV  
**Title** Site Location and Context

Status	Drawn By	PM/Checked By
FINAL	KAG	JF
Project Number	Scale @ A3	Date Created
SEC8343	1:160,000	MAR 2021
Figure Number		Rev
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- Legend**
- Planning boundary
  - Survey area**
  - Protected Species - 2020 (50 m buffer)
  - Phase 1 Habitat/Otter - 2020 (250 m buffer)
  - Breeding Bird - 2018 (250 m buffer)
  - Goose field use - 2018 (500 m buffer)

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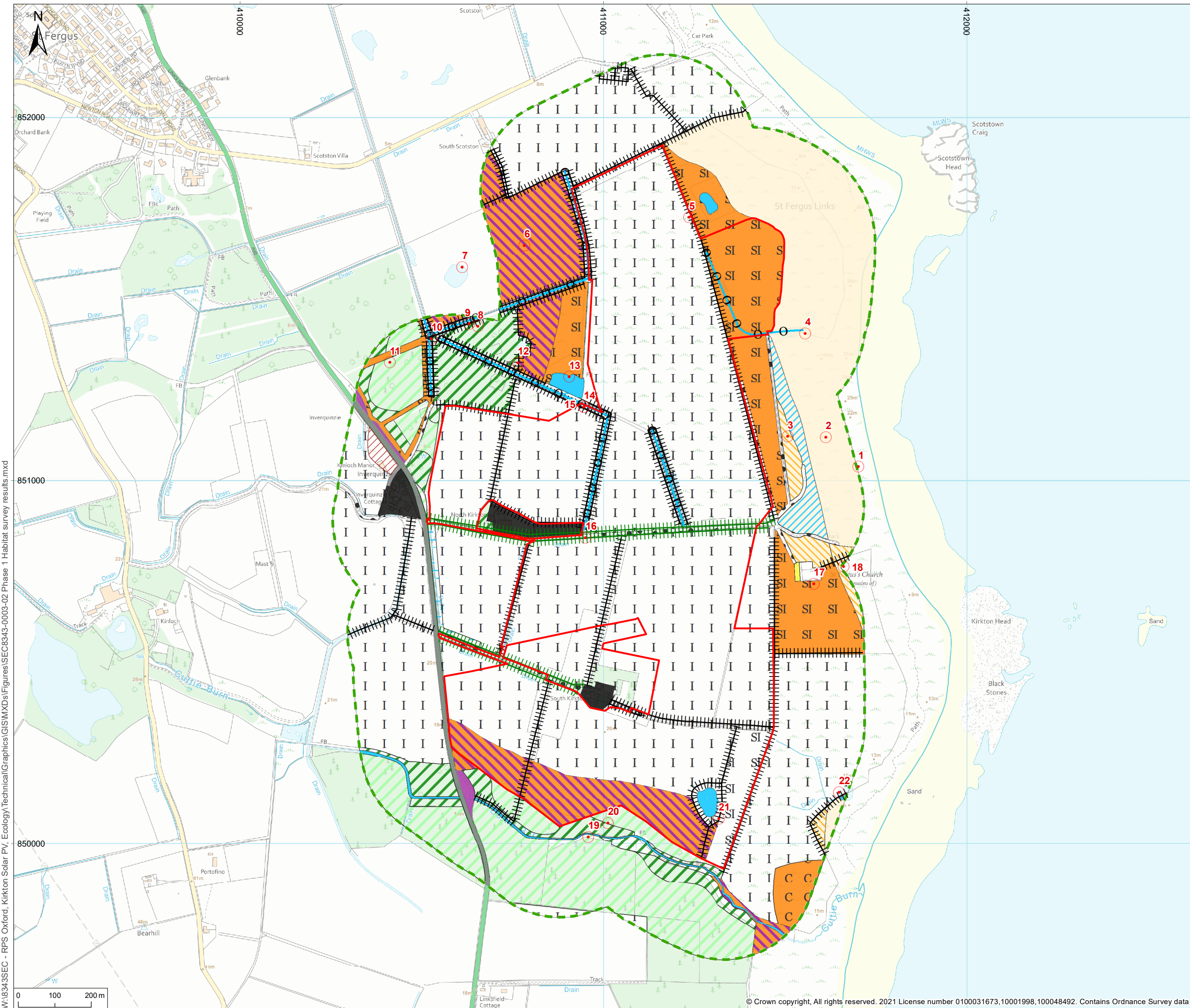


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Client **Elgin Energy EsCo Ltd**  
 Project **Kirkton Solar PV**  
 Title **Site Boundary and Survey Areas**

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- ### Legend
- Planning boundary
  - Phase 1 Habitat survey area (250 m buffer)
  - Phase 1 habitats
  - A1.1.2 - Broadleaved woodland - plantation
  - A1.2.2 - Coniferous woodland - plantation
  - B2.2 - Neutral grassland - semi-improved
  - B4 - Improved grassland
  - B5 - Marsh/marshy grassland
  - B6 - Poor semi-improved grassland
  - G1 - Standing water
  - H6.4 - Dune slack
  - H6.5 - Dune grassland
  - H6.8 - Open dune
  - H8.4 - Coastal grassland
  - J1.2 - Cultivated/disturbed land - amenity grassland
  - J2.6 - Dry ditch
  - J3.6 - Buildings
  - J4 - Bare ground
  - J5 - Other habitat
  - Road
  - Hardstanding
  - Not accessed land
  - G2 - Running Water
  - G2.3 - Running water - oligotrophic
  - J2.3.2 - Hedge with trees - species-poor
  - J2.4 - Fence
  - Target note

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Project **Kirkton Solar PV**

Title **Phase 1 Habitat Survey Results**

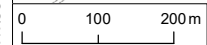
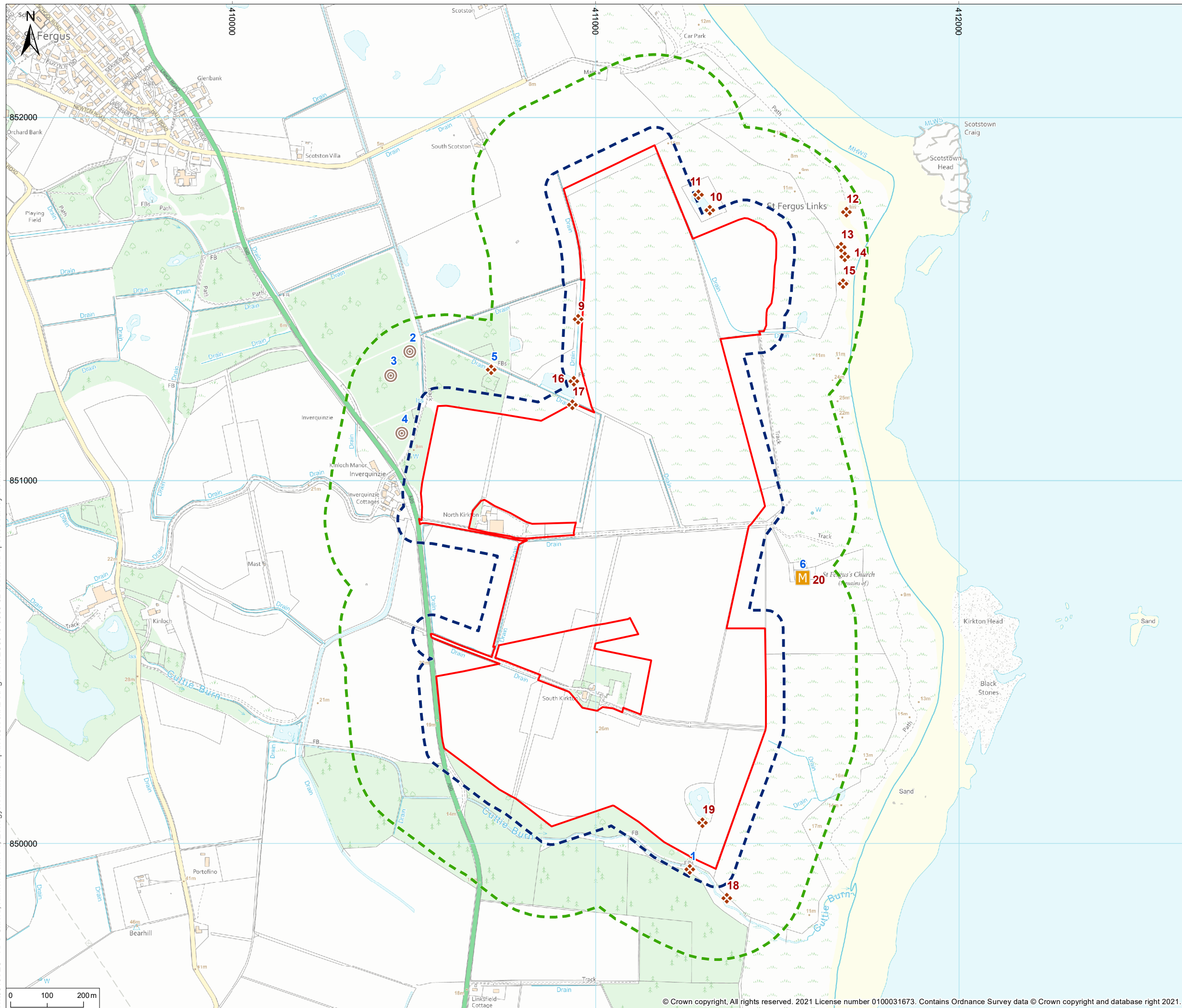
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- Legend**
- Planning boundary
  - Protected Species survey area (50 m buffer)
  - Otter survey area (250 m buffer)
- Protected species records (2018: blue iD 1-6)
- M Bat building roost potential - moderate (1)
  - ◆ Otter spraint (2)
  - ◎ Squirrel sp. feeding sign (3)
- Protected species records (2020: - brown iD 9-20)
- M Bat building roost potential - moderate (1)
  - ◆ Otter spraint (11)

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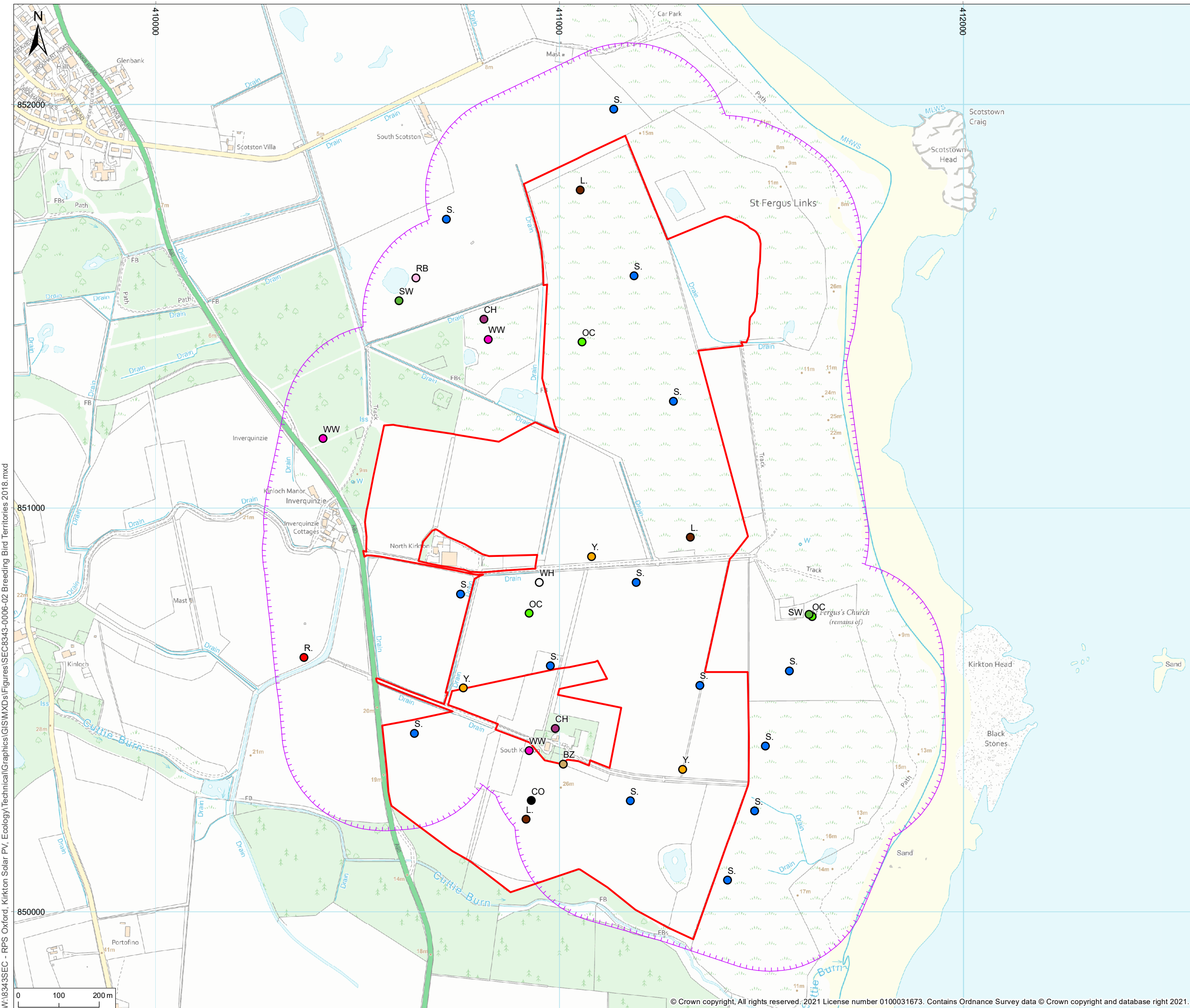
Client **Elgin Energy EsCo Ltd**

Project **Kirkton Solar PV**

Title **Protected Species Survey Results**

Status	Drawn By	PM/Checked By
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- Legend**
- Planning boundary
  - Breeding Bird survey area - 2018 (250 m buffer)
- Territories (2018)**
- Buzzard (1)
  - Chaffinch (2)
  - Coot (1)
  - Lapwing (3)
  - Oystercatcher (3)
  - Reed Bunting (1)
  - Robin (1)
  - Sedge Warbler (2)
  - Skylark (14)
  - Whitethroat (1)
  - Willow Warbler (3)
  - Yellowhammer (3)

Birds Of Conservation Concern and SBL	
Red Status Species	Amber Status Species
Corn Bunting	Oystercatcher
Lapwing	Reed Bunting
Skylark	Willow Warbler
Yellowhammer	

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Title Breeding Bird Survey Territories (2018)

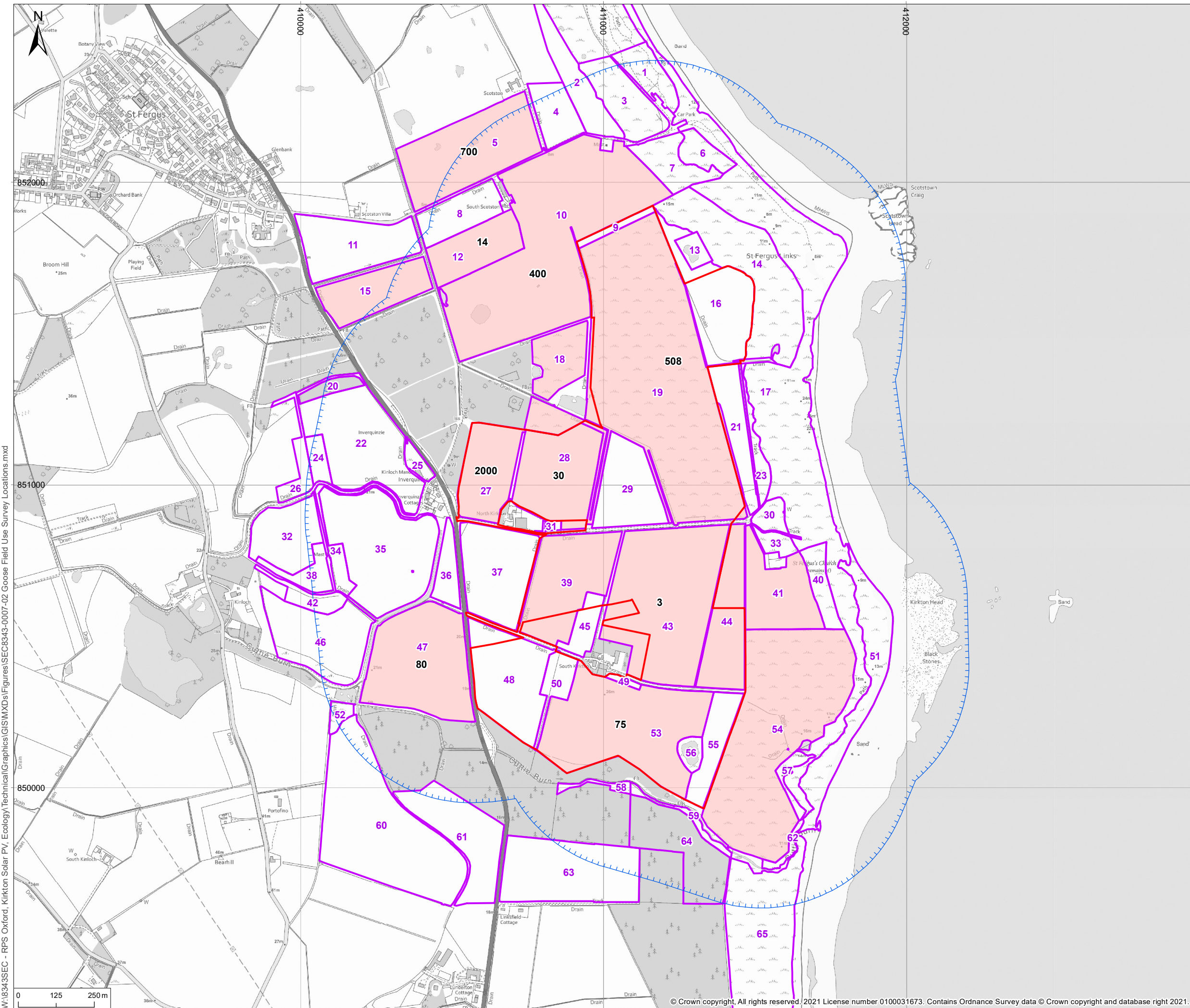
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- Legend**
- Planning boundary
  - Goose field use survey area - 2018 (500 m buffer)
  - Land parcel
  - Presence of geese recorded in 2018
  - 508 Peak count numbers of Pink-footed Geese (2018)

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Client **Elgin Energy EsCo Ltd**  
 Project **Kirkton Solar PV**  
 Title **Goose Field Use Survey Locations**

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 Project Number **SEC8343** Scale @ A3 **1:12,000** Date Created **MAR 2021**  
 Figure Number **7** Rev **-**

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## European Protected Species

European Protected Species are defined under the European Commission (EC) Habitats and Species Directive 92/43/EEC and include species such as otter, and all species of bat. The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) translates this European legislation into UK law. This was updated to the Conservation of Habitats and Species (Amendment) (EU Exit) regulations 2019 following the UK's exit from the European Union.

This legislation makes it an offence to deliberately or recklessly kill, injure or disturb European Protected Species. Their places of shelter are fully protected, and it is an offence to damage, destroy or obstruct access to or otherwise deny the animal use of a breeding site or resting site, whether deliberately or not. It is also an offence to disturb in a manner that is, or in circumstances which are likely to significantly affect the local distribution or abundance of the species, disturb in a manner or circumstances which are likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young. Any activity which is likely to affect such a species requires prior consultation with the relevant statutory nature conservation organisation. In Scotland, this means that Nature Scot should be consulted.

A licence from the Nature Scot is required in cases of potential disturbance of European Protected Species or damage or destruction of a resting site as a result of work activities. Under the Conservation of Habitats and Species (Amendment) (EU Exit) regulations 2019 licences may be granted for:

- preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Importantly in order for a licence application to be successful, two tests must be satisfied, namely:

- there is no satisfactory alternative (including retaining the status quo); and
- the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range.

## The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 provides protection to a range of species and habitats. The Nature Conservation (Scotland) Act 2004 and Wildlife and Natural Environment (Scotland) Act 2011 the amend the Wildlife and Countryside Act in Scotland.

Section 9 of the Act provides protection to certain animal species. Enhanced protection is provided for species listed in Schedule 5 which includes water voles and red squirrels. It is an offence to intentionally or recklessly kill, injure or take animals listed in Schedule 5, with the exception of water voles, which are protected in respect of Section 9(4) only, meaning that water vole habitat is protected, although the animals themselves are not. It is also an offence to recklessly damage, destroy or obstruct access to any place used for shelter or breeding by species listed under Schedule 5. Any works which may potentially cause disturbance to such a species requires prior consultation with Nature Scot.

The Wildlife and Countryside Act 1981 (as amended) also protects against the spread of invasive non-native plant and animal species (INNS). Specifically, in relation to plants, it is an offence under this legislation to plant or otherwise cause a plant to grow in the wild at a place outwith its native range and includes species such as Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and rhododendron (*Rhododendron ponticum* and hybrids).

In addition to the above, all wild birds, their nests and their eggs are protected under the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to intentionally or recklessly:

- kill, injure or take any wild bird (excluding certain specified game and other licence-controlled species);

## REPORT

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- take, damage, destroy or otherwise interfere with the nest of any wild bird while it is in use or being built;
- obstruct or prevent any wild bird from using its nest; or
- take or destroy the egg of any wild bird.

In addition, there are some rare breeding species, such as golden eagle, barn owl or kingfisher, which are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), which receive extra protection, making it an offence to intentionally or recklessly:

- disturb any species listed under Schedule 1 of the Act whilst at the nest site, or while building a nest;
- disturb the dependent young of any species listed under Schedule 1;
- disturb any species listed under Schedule 1 which leks while it is doing so;
- harass any wild bird included in Schedule 1A; or
- take, damage, destroy or otherwise interfere with any nest habitually used by any wild bird included in Schedule A1, even when that nest is not in use.

### **The Protection of Badgers Act 1992**

Badgers are protected under the Protection of Badgers Act 1992. In Scotland, this legislation was updated by the Nature Conservation (Scotland) Act 2004, which makes it an offence to recklessly take, injure or kill a badger, or destroy, disturb or interfere with its sett. In addition, badgers are afforded protection from cruel ill-treatment. This has been defined to include preventing a badger access to its sett, as well as causing the loss of significant foraging resources within a badger territory.

A licence from NatureScot is required in cases of potential disturbance of badgers or damage or destruction of a badger sett as a result of work activities.

## Methodology

### Phase 1 Habitat Survey

The Phase 1 Habitat Survey is a standardised technique used for classifying and mapping natural and semi-natural vegetation and wildlife habitats over areas of land. The survey was conducted with reference to the Handbook for Phase 1 Habitat Survey (JNCC, 2010) to establish the presence and distribution of habitat types within the Survey Area, and any potential ecological constraints to the development.

During the survey, all distinct habitats were identified and mapped using Phase 1 Habitat codes. The dominant plant species were recorded, and habitats classified according to their vegetation types and presented in the Phase 1 Habitat Survey format, accompanied by habitat descriptions, a habitat map and Target Notes (TN). In addition, any field signs or observations relating to protected wildlife species were also recorded, as described in Section 2.2.2 below. Inspections for the presence of invasive non-native plant species subject to legal control were also undertaken during the survey.

### Protected Species Surveys

During the survey all field signs or observations relating to protected wildlife species were recorded. The records were all uniquely identified using a Protected Species Record number (PSR).

### Otter

All waterbodies, watercourses, and minor ditches within the Survey Area were assessed for their potential to support otters, where access permitted and where it was safe to do so. Any signs of otter activity were recorded. Otter field signs are described in Bang and Dahlstrøm (2001) and NatureScot (2008) and include resting sites (e.g. holts and couches), spraints, prints and feeding remains. Descriptions of these and other field evidence terms are provided below:

- **Holts** - these are underground features where otters live. They can be tunnels within bank-sides, underneath root-plates or boulder piles, and even man-made structures such as disused drains. Holts are used by otters to rest up during the day due to the crepuscular nature of their foraging activities and may be used as natal or breeding sites. Otters may use holts permanently or temporarily;
- **Couches** - these are above ground resting sites. Couches can be very difficult to identify, sometimes consisting of no more than an area of flattened grass or earth, and are best identified by the presence of other field signs (e.g. spraints);
- **Prints** - otters have characteristic footprints that can be found in soft ground and muddy areas;
- **Spraints** - otter faeces can be used to mark territories, often on in-stream boulders. They can be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often contain fish remains;
- **Feeding signs** - the remains of prey items may be found at preferred feeding stations. Remains of fish, crabs or skinned amphibians can indicate the presence of otter;
- **Paths** - these are terrestrial routes that otters take when moving between resting-up sites and watercourses, or at high flow conditions when they will travel along bank sides in preference to swimming; and
- **Slides and play areas** - slides are typically worn areas on steep slopes where otters slide on their bellies, often found between holts/couches and watercourses.

Any of these field signs are diagnostic of the presence of otters although spraints are the most reliably identifiable evidence of the species' presence. Otters are active all year and so there is no optimal time of year in which to undertake otter surveys. However, otter surveys should be timed to avoid periods of heavy



rain or high water (following period of prolonged heavy rain), which might wash away field signs, thus potentially leading to under-recording or failing to confirm the species presence.

### Water Vole

All habitats within the Survey Area which could be safely accessed were assessed for the potential to support water voles. Any signs of water vole activity were recorded. Water vole field signs are described in Strachan and Moorhouse (2011) and include:

- **Faeces** - recognisable by their size, shape, and content. If not too dried-out these faeces are also distinguishable from rat droppings by their smell;
- **Latrines** - faeces, often deposited at discrete locations known as latrines;
- **Feeding stations** - food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation up to 10cm long;
- **Burrows** - appear as a series of holes along the water's edge distinguishable from rat burrows by size and position;
- **Lawns** - may appear as grazed areas around land holes;
- **Nests** - where the water table is high. Above ground woven nests may be found;
- **Footprints** - tracks may occur at the water's edge and lead into bank side vegetation. May be distinguishable from rat footprints by size; and
- **Runways in vegetation** - low tunnels pushed through vegetation near the water's edge, less obvious than rat runs.

Consideration of the species preferred habitat conditions was also taken into account, including:

- slow flowing water;
- low water level fluctuation;
- banks suitable for burrowing;
- lush bankside vegetation to provide food and shelter; and
- the absence of American mink (*Neovison vison*), the main predator of water vole.

### Badger

All areas of suitable habitat (e.g. woodland and scrub) within the Survey Area were assessed for their potential to support badgers. Any signs of badger activity were recorded.

Badger field signs are described in Natural England (2011), Roper (2010), Neal & Cheeseman (1996) Bang and Dahlström (2001) and SNH (2001) and include:

- **Setts** - used by badgers which can be sub-categorised into the following:
  - **Main setts**: several holes (sometimes up to 30) with large spoil heaps and obvious paths emanating from and between sett entrances;
  - **Annex setts**: Normally less than 150m from the main sett, comprising several holes and usually with well-defined runs connecting it to the main sett;
  - **Subsidiary setts**: Normally fairly close to the main sett (at least 50m away), typically comprising 3-5 entrances, generally with no tracks connecting them to other setts and only signs of occasional use; and
  - **Outlier setts**: Typically consisting of just one or two entrances with little spoil outside the entrance holes, often with no obvious paths connecting them to other setts.
- **Latrines** - dung pits used as territorial markers;
- **Prints** - distinctive in shape;

- **Guard hairs** - these are distinctive in shape and colour and are often found snagged on wire fencing; and
- **Foraging signs** - snuffle holes and excavated wasp/bee nests.

Any of the above signs (with the exception of foraging signs) can be taken as diagnostic evidence of the presence of badger.

## Bats

As part of the PEA, an assessment was made of the suitability of the habitat to support roosting, foraging and commuting bats within the Survey Area. The assessment criteria as per the Bat Conservation Trust (Collins, 2016) are detailed in Table B.1.

**Table B.1: Bat Habitat Suitability Criteria (taken from Collins, 2016)**

Suitability	Description Roosting Habitat	Commuting and Foraging Habitat
Negligible	Negligible habitat features on site not likely to be used by roosting bats.	Negligible habitat features on site not likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as gappy hedgerows or unvegetated streams, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to its size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site close to and connected to known roosts.

## Breeding Bird Surveys

The breeding bird survey undertaken was based on a standard territory mapping methodology as outlined in Gilbert et al. (1998) and Bibby et al. (2000). Due to the type of habitats on site and the wider area, it was concluded that the most appropriate methodology to identify the principle usage of species on site during the breeding season was an assessment of their territorial occupation. This is found particularly amongst passerines, where territories are often marked by conspicuous song, display and periodic disputes with neighbouring individuals. All bird species were recorded and mapped across the whole survey area.

The survey area was walked at a slow pace in order to locate and identify all individual birds. The whole survey area was covered over multiple visits due to the size of the survey area using suitable optical equipment to observe bird behaviour and all areas of the site were approached to within 50 -100m, where possible. Survey routes were mapped, and the direction walked alternated on each visit, to ensure that all areas were covered at various times of day across the duration of the survey. All species encountered within the survey area were recorded and mapped.

On each visit, registrations were recorded onto a 1:10,000 scale Ordnance Survey base map of the study area (and adjacent land). A fresh map was used for each survey. Registrations of birds were recorded using standard British Trust for Ornithology (BTO) two letter species codes (BTO 2009). Specific codes were also

used to denote singing, calling, movement between areas, flight, carrying food, nest building, aggressive encounters and other behaviour.

Survey results were entered into a bespoke Access database and bird records digitised on ArcGIS. Associated weather data for each survey visit was also entered onto an associated Access database. These were then analysed in order to identify the minimum number of breeding territories for all rare and vulnerable target species of conservation concern (i.e. species listed on Annex I of the EU Wild Birds Directive, Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), the RSPB Birds of Conservation Concern (BoCC) Red List (Eaton et al, 2015), NERC Species of Principal Importance and UK BAP Priority Species).

The following definitions have been used to identify the breeding status of the species recorded:

- **Confirmed Breeding:** includes species for which territories were positively identified as a result of the number of registrations, the location of an active nest, and the presence of recently fledged young or downy young;
- **Probable Breeding:** includes a pair observed in suitable nesting habitat in breeding season, or agitated behaviour / anxiety calls from adults suggesting probable presence of nest or young nearby. Behaviour was observed on insufficient occasions to confirm the presence of a territory;
- **Possible Breeding:** Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat and/or species observed in breeding season in suitable nesting habitat;
- **Non-Breeding:** fly-over species observed but suspected to be on migration, or species observed but suspected to be summering non-breeder.

### Goose Surveys

Field surveys followed guidance set out in SNH's survey guidance for onshore wind farms<sup>6</sup>. Six surveys were undertaken to detect the presence of wintering waterfowl foraging within 500m of the development site. Surveys were undertaken on a fortnightly basis between February and April, 2018 inclusive. The time frame for the surveys was agreed with NatureScot. Full survey timings and weather conditions are presented in Section 3.1.3.7.

All waterfowl species present within this area during the survey visits were recorded, as well the presence of any goose droppings indicative of recent foraging activity. The survey area was divided up by existing field boundaries into 65 fields. Each group of wintering wildfowl recorded within the survey area was thus assigned into the appropriate field number to show foraging distribution across the survey area. Field numbers are illustrated in Figure 5.

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<sup>6</sup> SNH (2014). Recommended bird survey methods to inform impact assessment of onshore wind farms.

## Phase 1 Target Notes

Table C.1: Protected Species Survey Recording Sheet

TN	Easting	Northing	Note
1	411702	851038	Open dune (yellow and grey) - hilly and undulating, almost completely covered in vegetation. Marram grass present. Leads to foredune with less vegetation cover
2	411613	851119	Dune slack flat marshy area between dunes and coastal grassland. No marram grass
3	411508	851121	Coastal grassland
4	411556	851405	Channel with low level slow flow water with culvert from field. No otter potential. Heavily vegetated.
5	411237	851724	Pond located 20m east of grid reference. Bullocks in field and therefore could not access. Pond is open and exposed. There is no bankside. Trees and grasses are the only vegetation. No shade and no emergent vegetation. Surrounded by grassland and improved grassland.
6	410783	851647	Defunct farm buildings - collapsed stone walls and piles of rubble - reptile potential
7	410612	851587	Pond surrounded by marshy grassland. Shallow and dirty. Mud substrate and no emerged or submerged vegetation. Wading bird footprints are abundant around the edges.
8	410655	851424	The area is dominated by willow and birch. Not much understorey, some perennial ryegrass and nettles.
9	410631	851431	Drainage channels around A1.1.2 are shallow and mostly dry. No signs of otter or water vole. Abundant juncus with orange FEO water puddles.
10	410527	851390	Channels between RL and CF plantation is much deeper with steep banks than the other drainage channels. Clear water at a low level. Bankside is vegetated with grasses, juncus and hairy leaved plantain.
11	410413	851325	Spruce with no understorey. Young dense trees. Difficult to find squirrel dreys. Pheasant, wrens, chaffinch, corvids, pigeons, present. Small birds' nests and buzzard hear. Heavily managed woodland with pheasant feeders and hides throughout.
12	410765	851324	Marshy grassland. Not woodland as on OS mapping.
13	410906	851285	2x mute swans, 2x herons, coot, mallard, teal. A flock of around 200 pink-footed goose. Large pond with numerous bird species. Bankside consists of willow with emergent vegetation. No shade. Frequent use by waterfowl. Surrounded by semi-improved neutral grassland. 13 entrance badger sett located on north bank.
14	410947	851203	On south side of Pond 3 deep channel, vegetated banks with grasses. Some of the banks are steep
15	410947	851203	Recently trimmed hawthorn hedges line the dead-end track past north Kirkton Farm. With ash, spruce and other broadleaved trees.
	414973	852222	Bat roost potential in farm house building at north Kirkton Farm. Most buildings are new and sealed but a couple are old with loft windows for access. No photos.
17	411580	850715	Remnants of St Fergus church with bat roosting potential. One small building with large hole in the roof. Cemetery beside stone building has amenity grassland around grave stones.
18	411662	850763	Dune grassland with sandy substrate. Many rabbit burrows.
19	410959	850018	Cuttie Burn is a 0.5 - 1m wide stream with banks steep in places. Banks are vegetated. Sand and stoney substrate clear water runs from north to south. Water levels are low. Bank vegetation comprises grasses and nettles with dock.
20	411013	850056	Coniferous woodland of young dense spruce. 3x buzzards seen flying overhead and plucking stations are present inside the woodland.
21	411318	850068	9x goosander, 1x mute swan, 3x oystercatcher, 2x coot, 2x mallard, 2x black-headed gull. Large pond surrounded by marshy grassland with grassy island in the middle. Shallow with no emerged or submerged vegetation. No shade and skylarks present.
22	411649	850142	2x goosander. Pond is a very large puddle which probably dries out in the summer time. Shallow and no shade. Very exposed with muddy water. Submerged and emergent vegetation. Algae.

## Desk Assessment Results

Table D.1: Desk Assessment Results Birds

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Arctic skua	<i>Stercorarius parasiticus</i>	NK1152	Annachie lagoon	24/08/2010	Abundance - 1 Count	Red	UK BAP
Arctic skua	<i>Stercorarius parasiticus</i>	NK1151	Scotstown Head	24/08/2010	Abundance - 1 Count	Red	UK BAP
Arctic skua	<i>Stercorarius parasiticus</i>	NK1053	Annachie lagoon	24/08/2010	Abundance - 1 Count	Red	UK BAP
Arctic skua	<i>Stercorarius parasiticus</i>	NK1151	Scotstown Head	24/08/2010	Abundance - 1 Count	Red	UK BAP
Arctic skua	<i>Stercorarius parasiticus</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count	Red	UK BAP
Arctic skua	<i>Stercorarius parasiticus</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count	Red	UK BAP
Arctic tern	<i>Sterna paradisaea</i>	NK1053	Annachie lagoon	13/07/2010	Abundance - 160 Count	Amber	ANNEX 1
Arctic tern	<i>Sterna paradisaea</i>	NK1152	Annachie lagoon	13/07/2010	Abundance - 160 Count	Amber	ANNEX 1
Arctic tern	<i>Sterna paradisaea</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Amber	ANNEX 1
Barnacle goose	<i>Branta leucopsis</i>	NK1152	Annachie lagoon	05/10/2010	Abundance - 1 Count	Amber	ANNEX 1
Barnacle goose	<i>Branta leucopsis</i>	NK1053	Annachie lagoon	05/10/2010	Abundance - 1 Count	Amber	ANNEX 1
Barnacle goose	<i>Branta leucopsis</i>	NK1052	St Fergus east	08/02/2011	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 5 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 5 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 5 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 5 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1053	Annachie lagoon	19/11/2010	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1152	Annachie lagoon	19/11/2010	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	03/02/2011	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	11/01/2011	Abundance - 1 Count	Amber	ANNEX 1

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Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	19/08/2011	Abundance - 1 Count	Amber	ANNEX 1
Bar-tailed Godwit	<i>Limosa lapponica</i>	NK1151	Scotstown Head	21/04/2011	Abundance - 1 Count	Amber	ANNEX 1
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	05/10/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	13/07/2010	Abundance - 6 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - 10 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 8 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1048		06/08/2010	Abundance - 450 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK103484		06/08/2010	Abundance - 450 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1048		10/09/2010	Abundance - 200 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK103484		10/09/2010	Abundance - 200 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	06/04/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	18/01/2011	Abundance - 6 Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1151	Scotstown Head	03/02/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Amber	ANNEX 2.2
Black-tailed Godwit	<i>Limosa limosa</i>	NK1151	Scotstown	13/08/2011	Abundance - 8 Count	Amber	UK BAP
Brent goose	<i>Branta bernicla</i>	NK1048		17/04/2010 - 27/04/2010	Abundance - 3 Count	Amber	ANNEX 2.2
Brent goose	<i>Branta bernicla</i>	NK103484		17/04/2010 - 27/04/2010	Abundance - 3 Count	Amber	ANNEX 2.2
Bullfinch	<i>Pyrrhula pyrrhula</i>	NK0952	St Fergus	31/12/2010	Abundance - 2 Count	Amber	UK BAP
Bullfinch	<i>Pyrrhula pyrrhula</i>	NK103484		03/01/2010	Abundance - 2 Count	Amber	UK BAP
Bullfinch	<i>Pyrrhula pyrrhula</i>	NK108523	St Fergus	19/09/2011	Abundance - 3 Count	Amber	UK BAP
Canada goose	<i>Branta canadensis</i>	NK1048		02/04/2010 - 08/04/2010	Abundance - 1 Count		ANNEX 2.1
Canada goose	<i>Branta canadensis</i>	NK103484		02/04/2010 - 08/04/2010	Abundance - 1 Count		ANNEX 2.1
Canada goose	<i>Branta canadensis</i>	NK1151	Scotstown Head	06/04/2011	Abundance - 1 Count		ANNEX 2.1
Common scoter	<i>Melanitta nigra</i>	NK1151	Scotstown Head	21/02/2011	Abundance - 1 Count	Red	UK BAP

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Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Common scoter	<i>Melanitta nigra</i>	NK1151	Scotstown Head	11/01/2011	Abundance - 1 Count	Red	UK BAP
Common tern	<i>Sterna hirundo</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 2 Count	Amber	ANNEX 1
Common tern	<i>Sterna hirundo</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 2 Count	Amber	ANNEX 1
Common tern	<i>Sterna hirundo</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - 1 Count	Amber	ANNEX 1
Common tern	<i>Sterna hirundo</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 1 Count	Amber	ANNEX 1
Common tern	<i>Sterna hirundo</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Amber	ANNEX 1
Common tern	<i>Sterna hirundo</i>	NK1151	Scotstown Head	20/04/2011	Abundance - 2 Count	Amber	ANNEX 1
Curlew	<i>Numenius arquata</i>	NK1048		29/06/2010	Abundance - 14 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		29/06/2010	Abundance - 14 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - 1 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 3 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1048		26/04/2010	Abundance - 1 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		26/04/2010	Abundance - 1 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1048		14/09/2010	Abundance - 2 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		14/09/2010	Abundance - 2 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1053	Annachie lagoon	21/09/2010	Abundance - 5 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		07/01/2010	Abundance - 11 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		10/03/2010	Abundance - 7 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1048		26/08/2010	Abundance - 8 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK103484		26/08/2010	Abundance - 8 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1152	Annachie lagoon	05/10/2010	Abundance - 2 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1053	Annachie lagoon	05/10/2010	Abundance - 2 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 156 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 156 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Red	UK BAP

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	21/02/2011	Abundance - 219 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	08/02/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	03/02/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	11/01/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1151	Scotstown Head	11/03/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK1052	St Fergus east	11/01/2011	Abundance - + Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK111524	Scotston, St Fergus	09/09/2018	Abundance - 6 Count	Red	UK BAP
Curlew	<i>Numenius arquata</i>	NK109527	St Fergus Links	12/07/2020	Abundance - 10 Count	Red	UK BAP
Dunlin	<i>Calidris alpina</i>	NK103484		07/01/2010	Abundance - 20 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		20/02/2010	Abundance - 22 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		04/03/2010	Abundance - 3 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	16/08/2010	Abundance - 1 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1048		27/08/2010	Abundance - 3 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		27/08/2010	Abundance - 3 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1048		29/05/2010	Abundance - 14 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		29/05/2010	Abundance - 14 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1048		24/07/2010	Abundance - 26 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		24/07/2010	Abundance - 26 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 3 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1048		10/09/2010	Abundance - 18 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK103484		10/09/2010	Abundance - 18 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 3 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 2 Count	Amber	SBL S2



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Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	19/08/2011	Abundance - 1 Count	Amber	SBL S2
Dunlin	<i>Calidris alpina</i>	NK1151	Scotstown Head	11/03/2011	Abundance - 1 Count	Amber	SBL S2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	21/02/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	08/02/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	03/02/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Amber	ANNEX 2.2
Eider	<i>Somateria mollissima</i>	NK1151	Scotstown Head	11/03/2011	Abundance - + Count	Amber	ANNEX 2.2
European Greater White-fronted Goose	<i>Anser albifrons subsp. albifrons</i>	NK097520	St Fergus	06/02/2010	Abundance - 1 Count		UK BAP
European Greater White-fronted Goose	<i>Anser albifrons subsp. albifrons</i>	NK1052	Scotstown	14/02/2010	Abundance - 1 Count		UK BAP
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 3 Count		ANNEX 1
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	25/10/2010	Abundance - 7 Count		ANNEX 1
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	25/10/2010	Abundance - 7 Count		ANNEX 1
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	02/08/2010	Abundance - 2 Count		ANNEX 1
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count		ANNEX 1
Golden plover	<i>Pluvialis apricaria</i>	NK1151	Scotstown Head	06/04/2011	Abundance - 1000 Count		ANNEX 1
Goldeneye	<i>Bucephala clangula</i>	NK103484		01/02/2010	Abundance - 10 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1048		02/04/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK103484		02/04/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 1 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 1 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	30/12/2010	Abundance - 6 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	30/12/2010	Abundance - 6 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK103484		03/01/2010	Abundance - 12 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK103484		17/03/2010	Abundance - 8 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	21/02/2011	Abundance - 8 Count	Amber	ANNEX 2.2

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	08/02/2011	Abundance - 8 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	03/02/2011	Abundance - 5 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	28/01/2011	Abundance - 2 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 6 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	11/01/2011	Abundance - 2 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	24/03/2011	Abundance - 3 Count	Amber	ANNEX 2.2
Goldeneye	<i>Bucephala clangula</i>	NK1151	Scotstown Head	11/03/2011	Abundance - 1 Count	Amber	ANNEX 2.2
Grasshopper warbler	<i>Locustella naevia</i>	NK1048		12/05/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK103484		12/05/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK1048		24/07/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK103484		24/07/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK1048		03/08/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK103484		03/08/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK1048		26/04/2010	Abundance - 2 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK103484		26/04/2010	Abundance - 2 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK1048		27/04/2010	Abundance - 1 Count	Red	UK BAP
Grasshopper warbler	<i>Locustella naevia</i>	NK103484		27/04/2010	Abundance - 1 Count	Red	UK BAP
Great northern diver	<i>Gavia immer</i>	NK1151	Scotstown Head	11/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1151	Scotstown Head	11/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1053	Annachie lagoon	19/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1152	Annachie lagoon	19/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count		ANNEX 1
Great northern diver	<i>Gavia immer</i>	NK1151	Scotstown Head	28/01/2011	Abundance - 1 Count		ANNEX 1
Green sandpiper	<i>Tringa ochropus</i>	NK1048		24/07/2010	Abundance - 1 Count	Amber	SBL S3
Green sandpiper	<i>Tringa ochropus</i>	NK103484		24/07/2010	Abundance - 1 Count	Amber	SBL S3
Green sandpiper	<i>Tringa ochropus</i>	NK1048		03/08/2010	Abundance - 3 Count	Amber	SBL S3
Green sandpiper	<i>Tringa ochropus</i>	NK103484		03/08/2010	Abundance - 3 Count	Amber	SBL S3
Green sandpiper	<i>Tringa ochropus</i>	NK103484		19/01/2010	Abundance - 1 Count	Amber	SBL S3

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Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Greenland Greater White-fronted Goose	<i>Anser albifrons subsp. flavirostris</i>	NK097520	St Fergus	14/02/2010	Abundance - 1 Count		ANNEX 1
Greenland Greater White-fronted Goose	<i>Anser albifrons subsp. flavirostris</i>	NK1049	near Inverugie	26/09/2010	Abundance - 1 Count		ANNEX 1
Greylag goose	<i>Anser anser</i>	NK103484		07/03/2010	Abundance - 3 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK103484		08/01/2010	Abundance - 30 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK103484		21/02/2010	Abundance - 12 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK1048		01/09/2010 - 14/09/2010	Abundance - 9 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK103484		01/09/2010 - 14/09/2010	Abundance - 9 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK1048		02/08/2010 - 07/08/2010	Abundance - 9 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK103484		02/08/2010 - 07/08/2010	Abundance - 9 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK1048		06/08/2010	Abundance - 8 Count	Amber	ANNEX 2.1
Greylag goose	<i>Anser anser</i>	NK103484		06/08/2010	Abundance - 8 Count	Amber	ANNEX 2.1
Hen harrier	<i>Circus cyaneus</i>	NK097520	St Fergus	28/01/2010	Abundance - 1 Count	Red	ANNEX 1
Hen harrier	<i>Circus cyaneus</i>	NK0952	St Fergus	05/03/2010	Abundance - 1 Count	Red	ANNEX 1
Herring gull	<i>Larus argentatus</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - 40 Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 84 Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1048		10/09/2010	Abundance - 260 Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK103484		10/09/2010	Abundance - 260 Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1053	Annachie lagoon	06/04/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	08/02/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	03/02/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	11/01/2011	Abundance - + Count	Red	UK BAP
Herring gull	<i>Larus argentatus</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count	Red	UK BAP
House sparrow	<i>Passer domesticus</i>	NK1048		20/08/2010	Abundance - 15 Count	Red	UK BAP
House sparrow	<i>Passer domesticus</i>	NK103484		20/08/2010	Abundance - 15 Count	Red	UK BAP

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Kestrel	<i>Falco tinnunculus</i>	NK1053	Annachie lagoon	24/08/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1048		12/09/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK103484		12/09/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1053	Annachie lagoon	13/07/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1152	Annachie lagoon	13/07/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1152	Annachie lagoon	23/07/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1152	Annachie lagoon	24/08/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK103484		01/02/2010 - 04/02/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK103484		03/03/2010	Abundance - 1 Count	Amber	SBL S5
Kestrel	<i>Falco tinnunculus</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 1 Count	Amber	SBL S5
Lapwing	<i>Vanellus vanellus</i>	NK103484		26/01/2010	Abundance - 60 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		12/02/2010	Abundance - 39 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		02/03/2010	Abundance - 38 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1152	Annachie lagoon	02/08/2010	Abundance - 200 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 200 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1048		05/08/2010	Abundance - 280 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		05/08/2010	Abundance - 280 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1048		04/09/2010	Abundance - 250 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1048		22/05/2010	Abundance - 1 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		22/05/2010	Abundance - 1 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1048		26/06/2010	Abundance - 36 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		26/06/2010	Abundance - 36 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1048		24/07/2010	Abundance - 200 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK103484		24/07/2010	Abundance - 200 Count	Red	UK BAP

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Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Lapwing	<i>Vanellus vanellus</i>	NK103484		04/09/2010	Abundance - 250 Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Red	UK BAP
Lapwing	<i>Vanellus vanellus</i>	NK1052	St Fergus east	11/01/2011	Abundance - + Count	Red	UK BAP
Lesser redpoll	<i>Acanthis cabaret</i>	NK0952	St Fergus	02/08/2010 - 03/08/2010	Abundance - 2 Count	Red	UK BAP
Lesser redpoll	<i>Acanthis cabaret</i>	NK0952	St Fergus	02/08/2010 - 03/08/2010	Abundance - 2 Count	Red	UK BAP
Lesser redpoll	<i>Acanthis cabaret</i>	NK1048		12/05/2010	Abundance - 1 Count	Red	UK BAP
Lesser redpoll	<i>Acanthis cabaret</i>	NK103484		12/05/2010	Abundance - 1 Count	Red	UK BAP
Merlin	<i>Falco columbarius</i>	NK097520	St Fergus	14/01/2010	Abundance - 1 Count	Red	ANNEX 1
Merlin	<i>Falco columbarius</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 1 Count	Red	ANNEX 1
Merlin	<i>Falco columbarius</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 1 Count	Red	ANNEX 1
Osprey	<i>Pandion haliaetus</i>	NK1048	Inverugie	05/08/2010 - 26/08/2010	Abundance - 1 Count	Amber	ANNEX 1
Osprey	<i>Pandion haliaetus</i>	NK103484	Inverugie	05/08/2010 - 26/08/2010	Abundance - 1 Count	Amber	ANNEX 1
Peregrine	<i>Falco peregrinus</i>	NK103484	Inverugie	20/02/2010	Abundance - 1 Count		ANNEX 1
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - + Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	13/12/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK103484	Inverugie	20/02/2010	Abundance - 2000 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 72 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 72 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1053	Annachie lagoon	05/10/2010	Abundance - + Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK103484	Inverugie	07/01/2010	Abundance - 380 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	21/02/2011	Abundance - 34 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1151	Scotstown Head	11/03/2011	Abundance - 89 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1052	St Fergus east	08/02/2011	Abundance - 1000 Count	Amber	ANNEX 2.2
Pink-footed Goose	<i>Anser brachyrhynchus</i>	NK1052	St Fergus east	11/01/2011	Abundance - 237 Count	Amber	ANNEX 2.2

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Purple sandpiper	<i>Calidris maritima</i>	NK1248	Craigewan, Peterhead	28/02/2010	Abundance - 34 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	05/10/2010	Abundance - 4 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 6 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 6 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 16 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 16 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	13/12/2010	Abundance - + Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK122482	Inverugie	08/01/2011	Abundance - 76 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	08/02/2011	Abundance - + Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	03/02/2011	Abundance - 5 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 24 Count	Amber	SBL S3
Purple sandpiper	<i>Calidris maritima</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Amber	SBL S3
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	02/02/2010	Abundance - 43 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	07/03/2010	Abundance - 43 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	19/08/2010	Abundance - 60 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	19/08/2010	Abundance - 60 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	24/08/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	18/05/2010	Abundance - 2 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	18/05/2010	Abundance - 2 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 14 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 14 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 13 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 13 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	19/11/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1053	Annachie lagoon	19/11/2010	Abundance - 1 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1152	Annachie lagoon	19/11/2010	Abundance - 1 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	17/04/2010	Abundance - 50 Count	Amber	ANNEX 2.2

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	17/04/2010	Abundance - 50 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	28/06/2010	Abundance - 8 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	28/06/2010	Abundance - 8 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	13/07/2010	Abundance - 33 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	13/07/2010	Abundance - 33 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1053	Annachie lagoon	13/07/2010	Abundance - 4 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	02/08/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	13/12/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	26/01/2010	Abundance - 19 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	08/09/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1048	Inverugie	14/09/2010	Abundance - 71 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK103484	Inverugie	14/09/2010	Abundance - 71 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	14/09/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	21/09/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	05/10/2010	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	08/02/2011	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	03/02/2011	Abundance - 2 Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	18/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	11/01/2011	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count	Amber	ANNEX 2.2
Redshank	<i>Tringa totanus</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Amber	ANNEX 2.2
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	19/11/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	21/09/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	21/09/2010	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1053	Annachie lagoon	18/01/2011	Abundance - 42 Count		ANNEX 1

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	21/02/2011	Abundance - 3 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	08/02/2011	Abundance - 1 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	03/02/2011	Abundance - 2 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	28/01/2011	Abundance - 3 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	18/01/2011	Abundance - 2 Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	11/01/2011	Abundance - + Count		ANNEX 1
Red-throated Diver	<i>Gavia stellata</i>	NK1151	Scotstown Head	06/04/2011	Abundance - 2 Count		ANNEX 1
Redwing	<i>Turdus iliacus</i>	NK103484	Inverugie	19/01/2010	Abundance - 2 Count	Red	ANNEX 2.2
Redwing	<i>Turdus iliacus</i>	NK103484	Inverugie	20/02/2010	Abundance - 9 Count	Red	ANNEX 2.2
Reed bunting	<i>Emberiza schoeniclus</i>	NK103484	Inverugie	07/01/2010	Abundance - 9 Count	Amber	UK BAP
Ruff	<i>Calidris pugnax</i>	NK1151	Scotstown Head	08/09/2010	Abundance - 1 Count	Red	ANNEX 1
Ruff	<i>Calidris pugnax</i>	NK1151	Scotstown Head	08/09/2010	Abundance - 1 Count	Red	ANNEX 1
Ruff	<i>Calidris pugnax</i>	NK1151	Scotstown	13/08/2011	Abundance - 5 Count	Red	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - 15 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	02/08/2010	Abundance - + Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	16/08/2010	Abundance - + Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	16/08/2010	Abundance - + Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	24/08/2010	Abundance - + Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	24/08/2010	Abundance - + Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	08/09/2010	Abundance - 5 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	08/09/2010	Abundance - 5 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 40 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	14/09/2010	Abundance - 40 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	21/09/2010	Abundance - 5 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	21/09/2010	Abundance - 5 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	21/09/2010	Abundance - 11 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1152	Annachie lagoon	21/09/2010	Abundance - 11 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	06/04/2011	Abundance - 94 Count	Amber	ANNEX 1
Sandwich tern	<i>Sterna sandvicensis</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Amber	ANNEX 1



## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Sandwich tern	<i>Sterna sandvicensis</i>	NK1151	Scotstown Head	06/04/2011	Abundance - 2 Count	Amber	ANNEX 1
Short-eared Owl	<i>Asio flammeus</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 1 Count	Amber	ANNEX 1
Short-eared Owl	<i>Asio flammeus</i>	NK1151	Scotstown Head	21/10/2010	Abundance - 1 Count	Amber	ANNEX 1
Short-eared Owl	<i>Asio flammeus</i>	NK108523	St Fergus	15/12/2011	Abundance - 1 Count	Amber	ANNEX 1
Siskin	<i>Spinus spinus</i>	NK103484	Inverugie	05/01/2010	Abundance - 30 Count		SBL S5
Skylark	<i>Alauda arvensis</i>	NK103484	Inverugie	07/01/2010	Abundance - 200 Count	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK103484	Inverugie	20/02/2010	Abundance - 20 Count	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK0977950 809	Kirkton	22/03/2011	Abundance - 1 Count individual	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK1036650 429	Kirkton	28/03/2011	Abundance - 1 Count individual	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK1151	Scotstown Head	06/04/2011	Abundance - + Count	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK113522	St Fergus Links	17/07/2017	Abundance - 2 Count	Red	UK BAP
Skylark	<i>Alauda arvensis</i>	NK111524	St Fergus Links	25/05/2019	Abundance - 1 Count	Red	UK BAP
Snipe	<i>Gallinago gallinago</i>	NK103484	Inverugie	07/01/2010	Abundance - 40 Count	Amber	ANNEX 2.1
Snipe	<i>Gallinago gallinago</i>	NK103484	Inverugie	12/02/2010	Abundance - 23 Count	Amber	ANNEX 2.1
Snipe	<i>Gallinago gallinago</i>	NK103484	Inverugie	02/03/2010	Abundance - 25 Count	Amber	ANNEX 2.1
Snipe	<i>Gallinago gallinago</i>	NK103484	Inverugie	05/08/2010	Abundance - 1 Count	Amber	ANNEX 2.1
Snipe	<i>Gallinago gallinago</i>	NK1048	Inverugie	05/08/2010	Abundance - 1 Count	Amber	ANNEX 2.1
Snipe	<i>Gallinago gallinago</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 1 Count	Amber	ANNEX 2.1
Snow bunting	<i>Plectrophenax nivalis</i>	NK103484	Inverugie	07/01/2010	Abundance - 80 Count	Amber	SBL S3
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	02/04/2010	Abundance - 6 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	16/05/2010	Abundance - 5 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	07/01/2010	Abundance - 5 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	01/02/2010 - 04/02/2010	Abundance - 2 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	03/08/2010 - 19/08/2010	Abundance - 1 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK1048	Inverugie	02/06/2010	Abundance - 8 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	02/06/2010	Abundance - 8 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	08/07/2010	Abundance - 2 Count	Red	UK BAP
Song thrush	<i>Turdus philomelos</i>	NK103484	Inverugie	02/03/2010	Abundance - 5 Count	Red	UK BAP

## REPORT

Common Name	Latin Name	Grid Reference	Location Name	Date	Measurement	BoCC Designation	Designation (1st Ranked)
Starling	<i>Sturnus vulgaris</i>	NK1053	Annachie lagoon	02/08/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	13/12/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1053	Annachie lagoon	23/07/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	08/09/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	14/09/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	19/11/2010	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1053	Annachie lagoon	19/08/2011	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	28/01/2011	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1151	Scotstown Head	19/08/2011	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK1052	St Fergus east	11/01/2011	Abundance - + Count	Red	UK BAP
Starling	<i>Sturnus vulgaris</i>	NK113522	St Fergus Links	02/08/2017	Abundance - 75 Count	Red	UK BAP
Swift	<i>Apus apus</i>	NK1053	Annachie lagoon	13/07/2010	Abundance - 3 Count	Amber	SBL S5
Swift	<i>Apus apus</i>	NK1152	Annachie lagoon	13/07/2010	Abundance - 3 Count	Amber	SBL S5
Tree sparrow	<i>Passer montanus</i>	NK103484	Inverugie	02/04/2010	Abundance - 2 Count	Red	UK BAP
Tree sparrow	<i>Passer montanus</i>	NK1151	Scotstown Head	04/11/2010	Abundance - 10 Count	Red	UK BAP
Tree sparrow	<i>Passer montanus</i>	NK103484	Inverugie	12/05/2010	Abundance - 1 Count	Red	UK BAP
Tree sparrow	<i>Passer montanus</i>	NK103484	Inverugie	02/06/2010	Abundance - 1 Count	Red	UK BAP
White-tailed Eagle	<i>Haliaeetus albicilla</i>	NK1151	St Fergus's Church	01/03/2010	Abundance - 1 Count	Red	ANNEX 1
Whooper swan	<i>Cygnus cygnus</i>	NK097520	St Fergus	02/01/2010	Abundance - 46 Count	Amber	ANNEX 1
Whooper swan	<i>Cygnus cygnus</i>	NK1052	St Fergus east	11/01/2011	Abundance - 21 Count	Amber	ANNEX 1
Woodcock	<i>Scolopax rusticola</i>	NK103484	Inverugie	02/03/2010	Abundance - 1 Count	Red	ANNEX 2.1
Yellowhammer	<i>Emberiza citrinella</i>	NK103484	Inverugie	08/01/2010	Abundance - 5 Count	Red	UK BAP

UK BAP – UK Biodiversity Action Plan  
 Annex 1 - Threatened bird species (Birds Directive)  
 Annex 2.2 – Birds which may be hunted  
 SBL – Scottish Biodiversity List

## Appendix E

# Breeding Bird Survey Results and Conservation Designations

## REPORT

Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
26 April 2018	Chaffinch	singing	1				410423	851603		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				410297	851567		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				409881	850481		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				410289	850243		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				410437	850172		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				410748	849916		Outwith 2018 BBS Survey Area
26 April 2018	Corn bunting	singing	1				410251	851837	Red	Outwith 2018 BBS Survey Area
26 April 2018	Corn bunting	singing	1				410081	850411	Red	Outwith 2018 BBS Survey Area
26 April 2018	Corn bunting	singing	1				410609	851969	Red	Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	singing	1				410732	851429		Within 2018 BBS Survey Area
26 April 2018	Chiffchaff	singing	1				410918	849970		Outwith 2018 BBS Survey Area
26 April 2018	Chiffchaff	singing	1				410334	850182		Outwith 2018 BBS Survey Area
26 April 2018	Yellowhammer	singing	1				411306	850352	Red	Within 2020 site boundary
26 April 2018	Yellowhammer	singing	1				410758	850524	Red	Within 2020 site boundary
26 April 2018	Yellowhammer	singing	1				410579	850630	Red	Within 2018 BBS Survey Area
26 April 2018	Yellowhammer	calling	2				410152	850660	Red	Outwith 2018 BBS Survey Area
26 April 2018	Yellowhammer	calling	2				411080	850879	Red	Within 2020 site boundary
26 April 2018	Yellowhammer	calling	2				411163	850371	Red	Within 2020 site boundary
26 April 2018	Oystercatcher	calling	2				411072	852075	Amber	Within 2018 BBS Survey Area
26 April 2018	Oystercatcher	calling	2				411395	851346	Amber	Within 2018 BBS Survey Area
26 April 2018	Oystercatcher	calling	2				411423	850911	Amber	Within 2020 site boundary
26 April 2018	Oystercatcher	calling	2				410331	850374	Amber	Within 2018 BBS Survey Area
26 April 2018	Oystercatcher	calling	2				411398	850293	Amber	Within 2020 site boundary
26 April 2018	Chaffinch	calling	2				410889	850866		Within 2018 BBS Survey Area
26 April 2018	Chaffinch	calling	2				410733	850821		Within 2018 BBS Survey Area
26 April 2018	Chaffinch	calling	1				410549	851169		Within 2018 BBS Survey Area
26 April 2018	Blue tit	calling	2				410723	849968		Outwith 2018 BBS Survey Area
26 April 2018	Chaffinch	observed only	2				410737	849856		Outwith 2018 BBS Survey Area
26 April 2018	House sparrow	calling	6				410631	850905	Red	Within 2020 site boundary
26 April 2018	Lapwing	flying	4			Displaying	410530	852030	Red	Outwith 2018 BBS Survey Area
26 April 2018	Linnet	observed only	12				410427	851895	Red	Outwith 2018 BBS Survey Area

## REPORT

Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
26 April 2018	Lapwing	flying	2				410966	851899	Red	Within 2018 BBS Survey Area
26 April 2018	Wheatear	observed only	2				411488	851308		Within 2018 BBS Survey Area
26 April 2018	Pied wagtail	alarm/territorial call	1				411627	850731		Within 2018 BBS Survey Area
26 April 2018	Linnet	observed only	8				411235	850353	Red	Within 2020 site boundary
26 April 2018	Tree sparrow	calling	3				410746	850931	Red	Within 2020 site boundary
26 April 2018	Meadow pipit	flying	2			Displaying	411050	851793	Amber	Within 2020 site boundary
26 April 2018	Meadow pipit	flying	2			Displaying	411682	851715	Amber	Within 2018 BBS Survey Area
26 April 2018	Meadow pipit	flying	2			Displaying	411562	850676	Amber	Within 2018 BBS Survey Area
26 April 2018	Lapwing	flying	4			Displaying	411327	850152	Red	Within 2020 site boundary
26 April 2018	Meadow pipit	calling	2				411345	851121	Amber	Within 2020 site boundary
26 April 2018	Meadow pipit	calling	1				411213	851676	Amber	Within 2020 site boundary
26 April 2018	Meadow pipit	calling	2				411381	851945	Amber	Within 2018 BBS Survey Area
26 April 2018	Meadow pipit	calling	2				411691	850281	Amber	Within 2018 BBS Survey Area
26 April 2018	Meadow pipit	calling	2				411590	850143	Amber	Within 2018 BBS Survey Area
26 April 2018	Teal	observed only	6			On a pool	411323	850098	Amber	Within 2020 site boundary
26 April 2018	Rook	observed only	1			Rookery	410961	850370		Within 2020 site boundary
26 April 2018	Jackdaw	observed only	1				410974	850338		Within 2020 site boundary
26 April 2018	Robin	singing	1				410458	851504		Outwith 2018 BBS Survey Area
26 April 2018	Reed bunting	singing	1	male			410623	851488	Amber	Within 2018 BBS Survey Area
26 April 2018	Robin	singing	1				410804	849987		Outwith 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410414	850086	Amber	Outwith 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410707	850061	Amber	Outwith 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410235	850474	Amber	Outwith 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410415	851172	Amber	Within 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410853	851481	Amber	Within 2018 BBS Survey Area
26 April 2018	Willow warbler	singing	1				410858	851371	Amber	Within 2018 BBS Survey Area
26 April 2018	Great tit	singing	1				410624	851396		Within 2018 BBS Survey Area
26 April 2018	Wren	singing	1				410669	850146		Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				410324	851795	Red	Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				410878	851584	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				410989	851708	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	1				411165	850799	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	1				410073	850699	Red	Outwith 2018 BBS Survey Area

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
26 April 2018	Robin	singing	1				410368	850630		Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				411495	850040	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				411214	850269	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	1				411094	850294	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	1				411373	850570	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	1				411546	850443	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				411520	850599	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				411481	850732	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410719	852125	Red	Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410934	852046	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			411164	851968	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			411343	851731	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			411489	851525	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411157	851523	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411024	851576	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			410811	851739	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410633	851806	Red	Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410492	851755	Red	Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410327	851709	Red	Outwith 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410937	851142	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411329	851281	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411535	851171	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410332	850728	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410437	850495	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	2	pair			410967	850744	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			410848	850565	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411080	850584	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			410708	850425	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411405	850393	Red	Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411742	850380	Red	Within 2018 BBS Survey Area
26 April 2018	Wheatear	observed only	4	mixed			411001	851647		Within 2020 site boundary
26 April 2018	Skylark	singing	2	pair			411530	850261	Red	Within 2018 BBS Survey Area
26 April 2018	Skylark	singing	1				411393	850234	Red	Within 2020 site boundary

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
15 May 2018	Skylark	singing	1				410345	851788	Red	Outwith 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				410528	851647	Red	Outwith 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				410737	851753	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411254	852029	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411566	851119	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411320	851164	Red	Within 2020 site boundary
15 May 2018	Skylark	singing	1				410731	850798	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411286	850152	Red	Within 2020 site boundary
15 May 2018	Skylark	singing	1				411206	850258	Red	Within 2020 site boundary
15 May 2018	Skylark	singing	1				411382	850459	Red	Within 2020 site boundary
15 May 2018	Skylark	singing	1				411563	850356	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411576	850266	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1				411618	850577	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	flying	1				410833	851741	Red	Within 2018 BBS Survey Area
15 May 2018	Grey heron	flying	1				411445	851729		Within 2018 BBS Survey Area
15 May 2018	Buzzard	flying	1				411416	851549		Within 2020 site boundary
15 May 2018	Lesser Black-backed Gull	flying	1				411154	850937	Amber	Within 2020 site boundary
15 May 2018	Lesser Black-backed Gull	flying	3				410946	850590	Amber	Within 2020 site boundary
15 May 2018	Great Black-backed Gull	flying	2				411189	850698	Amber	Within 2020 site boundary
15 May 2018	Swallow	flying	2				411173	850533		Within 2020 site boundary
15 May 2018	Mallard	flying	2				411167	850180	Amber	Within 2020 site boundary
15 May 2018	Gannet	flying	7				411888	850575	Amber	Within 2018 BBS Survey Area
15 May 2018	Swallow	observed only	1				410234	851901		Outwith 2018 BBS Survey Area
15 May 2018	Shelduck	observed only	2	pair			410611	852051	Amber	Outwith 2018 BBS Survey Area
15 May 2018	House martin	observed only	2				410743	851941	Amber	Within 2018 BBS Survey Area
15 May 2018	House martin	observed only	2				411165	851975	Amber	Within 2018 BBS Survey Area
15 May 2018	Oystercatcher	observed only	9				411143	852085	Amber	Within 2018 BBS Survey Area
15 May 2018	Shelduck	observed only	1			In field with rabbit burrows, nest probably in area.	411214	851412	Amber	Within 2020 site boundary
15 May 2018	Skylark	occupied nest	1				411278	851334	Red	Within 2020 site boundary
15 May 2018	Lapwing	occupied nest	1				411325	850928	Red	Within 2020 site boundary
15 May 2018	Oystercatcher	occupied nest	1				410925	850739	Amber	Within 2020 site boundary

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
15 May 2018	Swallow	observed only	4				411643	850756		Within 2018 BBS Survey Area
15 May 2018	Sand martin	observed only	2				411736	850606		Within 2018 BBS Survey Area
15 May 2018	Mallard	observed only	2	pair			411630	850212	Amber	Within 2018 BBS Survey Area
15 May 2018	Lesser Black-backed Gull	observed only	2				411058	850142	Amber	Within 2020 site boundary
15 May 2018	Mallard	observed only	4				411044	850311	Amber	Within 2020 site boundary
15 May 2018	Shelduck	observed only	1	male			411032	850271	Amber	Within 2020 site boundary
15 May 2018	Swallow	observed only	2				410371	850506		Within 2018 BBS Survey Area
15 May 2018	Swallow	observed only	4				411345	850690		Within 2020 site boundary
15 May 2018	Meadow pipit	calling	2				411598	849954	Amber	Within 2018 BBS Survey Area
15 May 2018	Chaffinch	calling	1				410720	850128		Outwith 2018 BBS Survey Area
15 May 2018	Yellowhammer	calling	1				410721	850491	Red	Within 2020 site boundary
15 May 2018	Pied wagtail	calling	1				410929	852038		Within 2018 BBS Survey Area
15 May 2018	Skylark	calling	2				411251	851894	Red	Within 2018 BBS Survey Area
15 May 2018	Lapwing	calling	2				410422	851969	Red	Outwith 2018 BBS Survey Area
15 May 2018	Skylark	calling	3				411437	850354	Red	Within 2020 site boundary
15 May 2018	Yellowhammer	calling	1				411200	850829	Red	Within 2020 site boundary
15 May 2018	Skylark	calling	2	pair			411336	850818	Red	Within 2020 site boundary
15 May 2018	Swallow	calling	2				411065	850404		Within 2018 BBS Survey Area
15 May 2018	Curlew	calling	2				411051	850228	Red	Within 2020 site boundary
15 May 2018	Skylark	observed only	2	pair			411442	850076	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	observed only	2	pair			411611	850431	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	occupied nest	2	pair			411349	850560	Red	Within 2020 site boundary
15 May 2018	Skylark	occupied nest	2	pair			411185	851575	Red	Within 2020 site boundary
15 May 2018	Skylark	observed only	2	pair			411393	851343	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1			Displaying	411485	850189	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1			Displaying	411519	850462	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	occupied nest	1				411511	850410	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1			Displaying	411507	850644	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1			Displaying	411492	850740	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	singing	1			Displaying	411187	851209	Red	Within 2020 site boundary
15 May 2018	Yellowhammer	singing	1				410773	850679	Red	Within 2020 site boundary
15 May 2018	Yellowhammer	singing	1				410748	851861	Red	Within 2018 BBS Survey Area
15 May 2018	Yellowhammer	calling	1				410895	852156	Red	Outwith 2018 BBS Survey Area



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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
15 May 2018	Skylark	singing	1				411049	850933	Red	Within 2020 site boundary
15 May 2018	Sedge warbler	singing	1				411619	850822		Within 2018 BBS Survey Area
15 May 2018	Chaffinch	singing	1				410913	850070		Within 2020 site boundary
15 May 2018	Chaffinch	singing	1				410454	850219		Outwith 2018 BBS Survey Area
15 May 2018	Corn bunting	singing	1				410510	851848	Red	Outwith 2018 BBS Survey Area
15 May 2018	Corn bunting	singing	1				410237	850616	Red	Outwith 2018 BBS Survey Area
15 May 2018	Willow warbler	singing	1				410956	849973	Amber	Outwith 2018 BBS Survey Area
15 May 2018	Willow warbler	singing	1				410707	850186	Amber	Within 2020 site boundary
15 May 2018	Willow warbler	singing	1				410826	850500	Amber	Within 2020 site boundary
15 May 2018	Willow warbler	singing	1				410926	850398	Amber	Within 2020 site boundary
15 May 2018	Whitethroat	singing	1				410389	851718		Outwith 2018 BBS Survey Area
15 May 2018	Reed bunting	singing	2				410632	851553	Amber	Within 2018 BBS Survey Area
15 May 2018	Lapwing	occupied nest					410918	850229	Red	Within 2020 site boundary
15 May 2018	Coot	occupied nest	2				410927	850279		Within 2020 site boundary
15 May 2018	Buzzard	occupied nest	1				411010	850365		Within 2020 site boundary
15 May 2018	Swallow	calling	2				410871	850870		Within 2018 BBS Survey Area
15 May 2018	Oystercatcher	occupied nest	1				410471	851777	Amber	Outwith 2018 BBS Survey Area
15 May 2018	Lapwing	occupied nest	2			Displaying	411017	851570	Red	Within 2020 site boundary
15 May 2018	Oystercatcher	occupied nest	1			Displaying	411057	851411	Amber	Within 2020 site boundary
15 May 2018	Pied wagtail	occupied nest	1				411557	850732		Within 2018 BBS Survey Area
15 May 2018	Skylark	occupied nest	1				411586	850646	Red	Within 2018 BBS Survey Area
15 May 2018	Skylark	flying	2			Displaying	411360	850253	Red	Within 2020 site boundary
15 May 2018	Oystercatcher	flying	2			Displaying	411282	850409	Amber	Within 2020 site boundary
15 May 2018	Meadow pipit	flying	2			Displaying	411493	850561	Amber	Within 2018 BBS Survey Area
15 May 2018	Swallow	occupied nest	4	pair		2 pairs	410692	851989		Outwith 2018 BBS Survey Area
15 May 2018	Mallard	observed only	5				410435	851889	Amber	Outwith 2018 BBS Survey Area
15 May 2018	Chaffinch	singing	1				410991	850453		Within 2018 BBS Survey Area
15 May 2018	Lapwing	alarm/territorial call	2			Alarming by nest	410918	850229	Red	Within 2020 site boundary
21 June 2018	Woodpigeon	observed only	11				410165	851830		Outwith 2018 BBS Survey Area
21 June 2018	Woodpigeon	observed only	56				410757	851919		Within 2018 BBS Survey Area
21 June 2018	Woodpigeon	observed only	46				410814	851682		Within 2018 BBS Survey Area
21 June 2018	Woodpigeon	observed only	44				410509	851841		Outwith 2018 BBS Survey Area
21 June 2018	Woodpigeon	observed only	40				410874	850620		Within 2020 site boundary

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
21 June 2018	Woodpigeon	observed only	30				410649	850791		Within 2018 BBS Survey Area
21 June 2018	Lapwing	observed only	6				410284	851804	Red	Outwith 2018 BBS Survey Area
21 June 2018	Lapwing	observed only	3		Juv		410266	851764	Red	Outwith 2018 BBS Survey Area
21 June 2018	Skylark	carrying food	2				410286	851895	Red	Outwith 2018 BBS Survey Area
21 June 2018	Skylark	carrying food	1				411017	852064	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	carrying food	2				411508	850053	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	carrying food	1				411263	851384	Red	Within 2020 site boundary
21 June 2018	Reed bunting	carrying food	1				410668	851571	Amber	Within 2018 BBS Survey Area
21 June 2018	Sedge warbler	carrying food	1				410603	851525		Within 2018 BBS Survey Area
21 June 2018	Pied wagtail	carrying food	1				410725	852017		Outwith 2018 BBS Survey Area
21 June 2018	Whitethroat	carrying food	2				410414	851943		Outwith 2018 BBS Survey Area
21 June 2018	Sedge warbler	carrying food	1				411524	850955		Within 2018 BBS Survey Area
21 June 2018	Pied wagtail	carrying food	2				411455	850775		Within 2018 BBS Survey Area
21 June 2018	Yellowhammer	carrying food	2				411064	850871	Red	Within 2020 site boundary
21 June 2018	Whitethroat	carrying food	1				410951	850815		Within 2020 site boundary
21 June 2018	Buzzard	flying	1		Juv		410348	851647		Outwith 2018 BBS Survey Area
21 June 2018	Buzzard	flying	1				410759	851834		Within 2018 BBS Survey Area
21 June 2018	Great Black-backed Gull	flying	1				411425	851929	Amber	Within 2018 BBS Survey Area
21 June 2018	Herring gull	flying	2				411586	851711	Red	Within 2018 BBS Survey Area
21 June 2018	Great Black-backed Gull	flying	2				411576	851301	Amber	Within 2018 BBS Survey Area
21 June 2018	Swallow	flying	4				411561	850698		Within 2018 BBS Survey Area
21 June 2018	House martin	flying	2				411547	850645	Amber	Within 2018 BBS Survey Area
21 June 2018	Common gull	flying	2				411316	850678	Amber	Within 2020 site boundary
21 June 2018	Great Black-backed Gull	flying	1				411371	850596	Amber	Within 2018 BBS Survey Area
21 June 2018	Buzzard	flying	1				411641	850213		Within 2018 BBS Survey Area
21 June 2018	Oystercatcher	alarm/territorial call	6				411206	851548	Amber	Within 2020 site boundary
21 June 2018	Oystercatcher	alarm/territorial call	2				411492	851461	Amber	Within 2018 BBS Survey Area
21 June 2018	Oystercatcher	alarm/territorial call	2				411232	850555	Amber	Within 2020 site boundary
21 June 2018	Meadow pipit	alarm/territorial call	2				411489	850169	Amber	Within 2018 BBS Survey Area
21 June 2018	Oystercatcher	alarm/territorial call	2				411265	850170	Amber	Within 2020 site boundary
21 June 2018	Linnet	observed only	6				410851	850865	Red	Within 2018 BBS Survey Area
21 June 2018	Linnet	observed only	4				410686	850557	Red	Within 2018 BBS Survey Area
21 June 2018	Linnet	observed only	6				411511	851234	Red	Within 2018 BBS Survey Area

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
21 June 2018	Linnet	observed only	5				410429	851832	Red	Outwith 2018 BBS Survey Area
21 June 2018	Great tit	observed only	2		Juv		410767	851887		Within 2018 BBS Survey Area
21 June 2018	Pied wagtail	observed only	5		Juv		410943	852044		Within 2018 BBS Survey Area
21 June 2018	Curlew	observed only	8				411221	851908	Red	Within 2018 BBS Survey Area
21 June 2018	Swallow	observed only	4				410694	851610		Within 2018 BBS Survey Area
21 June 2018	Oystercatcher	observed only	2				410856	851605	Amber	Within 2018 BBS Survey Area
21 June 2018	Chaffinch	observed only	2				410882	851499		Within 2018 BBS Survey Area
21 June 2018	Starling	observed only	28			Adults and juveniles	411407	851533	Red	Within 2020 site boundary
21 June 2018	Meadow pipit	observed only	4				411496	851354	Amber	Within 2018 BBS Survey Area
21 June 2018	Swallow	observed only	3				411429	850717		Within 2018 BBS Survey Area
21 June 2018	Swallow	observed only	2				411571	850474		Within 2018 BBS Survey Area
21 June 2018	Swallow	observed only	2				411031	850207		Within 2020 site boundary
21 June 2018	Swallow	observed only	1				410770	850367		Within 2020 site boundary
21 June 2018	Starling	observed only	20				410933	850721	Red	Within 2020 site boundary
21 June 2018	Starling	observed only	20				411585	850369	Red	Within 2018 BBS Survey Area
21 June 2018	Starling	observed only	38				411625	850790	Red	Within 2018 BBS Survey Area
21 June 2018	Meadow pipit	observed only	2		Juv		411640	850757	Amber	Within 2018 BBS Survey Area
21 June 2018	Rook	observed only	8				411071	850600		Within 2020 site boundary
21 June 2018	Swift	observed only	3				411328	850406	Amber	Within 2020 site boundary
21 June 2018	Great spotted woodpecker	observed only	6				411542	850271		Within 2018 BBS Survey Area
21 June 2018	Meadow pipit	observed only	2				411548	849977	Amber	Within 2018 BBS Survey Area
21 June 2018	Coot	observed only	2				410931	850275		Within 2020 site boundary
21 June 2018	Oystercatcher	observed only	4				410443	850474	Amber	Within 2018 BBS Survey Area
21 June 2018	Yellowhammer	observed only	2		Juv		410771	850523	Red	Within 2020 site boundary
21 June 2018	Rook	observed only	10				411059	850402		Within 2018 BBS Survey Area
21 June 2018	Jackdaw	observed only	6				411042	850357		Within 2020 site boundary
21 June 2018	Chaffinch	observed only	2				411135	850050		Within 2020 site boundary
21 June 2018	Willow warbler	calling	1				411036	850067	Amber	Within 2018 BBS Survey Area
21 June 2018	Skylark	calling	2			With food	411206	850762	Red	Within 2020 site boundary
21 June 2018	Skylark	observed only	8				411538	850596	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	observed only	3		Juv		411548	850554	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	observed only	4		Juv		411275	851230	Red	Within 2020 site boundary
21 June 2018	Skylark	observed only	6				411251	851287	Red	Within 2020 site boundary

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Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
21 June 2018	Skylark	observed only	2				411352	851745	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	observed only	2		Juv		411362	851690	Red	Within 2020 site boundary
21 June 2018	Skylark	observed only	2		Juv		411044	852030	Red	Within 2018 BBS Survey Area
21 June 2018	Skylark	calling	2				410645	851640	Red	Within 2018 BBS Survey Area
21 June 2018	Peregrine	carrying food	1			Killed adult CM	411040	850298		Within 2020 site boundary
16 July 2018	Meadow pipit	observed only	6				411036	851820	Amber	Within 2020 site boundary
16 July 2018	Meadow pipit	observed only	2				411428	851453	Amber	Within 2020 site boundary
16 July 2018	Meadow pipit	observed only	4				411411	851279	Amber	Within 2018 BBS Survey Area
16 July 2018	Meadow pipit	observed only	6				411284	851093	Amber	Within 2020 site boundary
16 July 2018	Meadow pipit	observed only	2				411577	851091	Amber	Within 2018 BBS Survey Area
16 July 2018	Meadow pipit	observed only	6				411700	850823	Amber	Within 2018 BBS Survey Area
16 July 2018	Meadow pipit	observed only	4				411578	850551	Amber	Within 2018 BBS Survey Area
16 July 2018	Meadow pipit	observed only	6				411649	850262	Amber	Within 2018 BBS Survey Area
16 July 2018	Meadow pipit	observed only	6				411466	850092	Amber	Within 2018 BBS Survey Area
16 July 2018	Skylark	calling	4				410888	851922	Red	Within 2018 BBS Survey Area
16 July 2018	Reed bunting	calling	2				410626	851599	Amber	Within 2018 BBS Survey Area
16 July 2018	Willow warbler	calling	1				410637	851406	Amber	Within 2018 BBS Survey Area
16 July 2018	Chaffinch	calling	2				410855	851487		Within 2018 BBS Survey Area
16 July 2018	Linnet	calling	6				411057	851948	Red	Within 2018 BBS Survey Area
16 July 2018	Skylark	calling	2				411352	850104	Red	Within 2020 site boundary
16 July 2018	Buzzard	calling	1		Juv		411046	850053		Within 2018 BBS Survey Area
16 July 2018	Buzzard	flying	1				410495	851925		Outwith 2018 BBS Survey Area
16 July 2018	Buzzard	flying	1				411065	852029		Within 2018 BBS Survey Area
16 July 2018	Curlew	flying	2				411326	851714	Red	Within 2018 BBS Survey Area
16 July 2018	Great Black-backed Gull	flying	1				411278	850948	Amber	Within 2020 site boundary
16 July 2018	Raven	flying	2				411349	850827		Within 2020 site boundary
16 July 2018	Curlew	flying	1				411244	850614	Red	Within 2020 site boundary
16 July 2018	Herring gull	flying	2				411261	850468	Red	Within 2020 site boundary
16 July 2018	Raven	flying	2				410711	850324		Within 2020 site boundary
16 July 2018	Oystercatcher	observed only	2		Adult	With juveniles	411162	852108	Amber	Within 2018 BBS Survey Area
16 July 2018	Oystercatcher	observed only	2		Juv	With adults	411163	852081	Amber	Within 2018 BBS Survey Area
16 July 2018	Starling	observed only	30		Juv		411180	851978	Red	Within 2018 BBS Survey Area

## REPORT

Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
16 July 2018	Oystercatcher	observed only	4				411194	851213	Amber	Within 2020 site boundary
16 July 2018	Lapwing	observed only	2				411124	851742	Red	Within 2020 site boundary
16 July 2018	Lapwing	observed only	2				411177	851411	Red	Within 2020 site boundary
16 July 2018	Lapwing	observed only	14			6 are juveniles	410977	850174	Red	Within 2020 site boundary
16 July 2018	Sedge warbler	carrying food	1				411532	850575		Within 2018 BBS Survey Area
16 July 2018	Sedge warbler	carrying food	1				411580	850661		Within 2018 BBS Survey Area
16 July 2018	Pied wagtail	carrying food	1				411524	850701		Within 2018 BBS Survey Area
16 July 2018	Skylark	carrying food	1				411327	850348	Red	Within 2020 site boundary
16 July 2018	Sedge warbler	carrying food	1				410616	851520		Within 2018 BBS Survey Area
16 July 2018	Skylark	carrying food	1				411376	851528	Red	Within 2020 site boundary
16 July 2018	Skylark	carrying food	1				411366	850656	Red	Within 2020 site boundary
16 July 2018	Skylark	carrying food	1				410942	850659	Red	Within 2020 site boundary
16 July 2018	Skylark	carrying food	1				410833	850787	Red	Within 2020 site boundary
16 July 2018	Swallow	observed only	10				410760	851946		Within 2018 BBS Survey Area
16 July 2018	Linnet	observed only	12				411219	851894	Red	Within 2018 BBS Survey Area
16 July 2018	Skylark	observed only	2				411522	851234	Red	Within 2018 BBS Survey Area
16 July 2018	Skylark	observed only	4				411333	851049	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	4				411355	850523	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	6				411398	850433	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	6				411365	850271	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	2				411271	850168	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	4				410640	850691	Red	Within 2018 BBS Survey Area
16 July 2018	Skylark	observed only	6				410626	850466	Red	Within 2020 site boundary
16 July 2018	Skylark	observed only	6		Juv		410931	850605	Red	Within 2020 site boundary
16 July 2018	House martin	observed only	6				410902	850525	Amber	Within 2020 site boundary
16 July 2018	Swallow	observed only	10				410914	850486		Within 2020 site boundary
16 July 2018	Skylark	observed only	4				410431	850497	Red	Within 2018 BBS Survey Area
16 July 2018	Skylark	observed only	6		Juv		410426	850426	Red	Within 2018 BBS Survey Area
16 July 2018	Coot	observed only	2		Juv		410996	850301		Within 2020 site boundary
16 July 2018	Coot	observed only	2		Adult		410989	850267		Within 2020 site boundary
16 July 2018	Linnet	observed only	6				411419	850813	Red	Within 2018 BBS Survey Area
16 July 2018	Lapwing	observed only	6			4 adults and 2 juveniles	411355	850938	Red	Within 2020 site boundary

## REPORT

Survey date	Species	Behaviour	No of birds	Gender	Age	Comments	Easting	Northing	Status	Location
16 July 2018	Goldfinch	observed only	2		Juv		411512	850894		Within 2018 BBS Survey Area
16 July 2018	Goldfinch	observed only	12		Adult		411583	850811		Within 2018 BBS Survey Area
16 July 2018	Sparrowhawk	carrying food	1			With prey	411495	850393		Within 2018 BBS Survey Area