



Sheep Skerry Breeding Bird Survey Report

Report to BTAL

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1 INTRODUCTION

Aquatera Ltd has been commissioned to undertake breeding bird surveys at Sheep Skerry, Hoy, an area identified as a possible cable landfall location for the 200MW Brims Tidal Array Ltd development off the south coast of Hoy. The findings of these surveys will be used to inform the site selection process to identify the preferred locations for the onshore supporting infrastructure and the Environmental Impact Assessment (EIA) for the proposed development.

1.1 OBJECTIVES

The objectives of the survey were to establish the abundance and distribution of breeding birds within the onshore component of the Sheep Skerry export cable corridor Area of Search (AoS) and a surrounding buffer area (see Figure 3.1).

1.2 SURVEY AREA

The survey area covered the onshore area of the Sheep Skerry export cable corridor AoS (up to Mean High Water Springs (MHWS) plus an additional surrounding buffer area extending out to a distance of at least 500m (excluding the area that was previously surveyed in 2012)¹. This provides coverage of all areas potentially subject to disturbance from the proposed development. The survey area is shown in Figure 3.1.

1.3 BRIEF SITE DESCRIPTION

The enclosed field boundary immediately adjacent to the Sheep Skerry export cable corridor AoS is dominated by an area of sand dune and dune grassland habitat that has in the past been quarried for sand over a long period and is now used as a livestock wintering and feeding station. The site is adjacent to the eastern edge of Hoy Special Protection Area (SPA) which is an extensive area encompassing moorland and seacliff habitat designated for populations of breeding seabirds and peregrine. To the north and east of the AoS there are agricultural fields used as grazing pasture for cattle and sheep and there are some fields sown with arable crops such as barley.

¹ Aquatera (2012) Bird Survey Report

2 METHODOLOGY

2.1 SURVEY METHOD

The area was surveyed for breeding birds by a suitably qualified and experienced local surveyor using standard methodology appropriate for each of the two main habitat types present (farmland and moorland) within the survey area.

The enclosed field boundaries were surveyed for breeding waders using the O'Brien and Smith (1992) method and the open moorland habitat to the west of Sheep Skerry export cable corridor AoS was surveyed for breeding waders in accordance with the Brown and Shepherd (1993) method (see Figure 3.1). Both methods are fully described in Gilbert *et al.* (1998). In addition to breeding waders, records were made of any other breeding species observed within the survey area including passerines and non-passerine species such as gulls and skuas. This method almost certainly underestimates the number of breeding passerines, however provides indicative data on their presence and approximate distribution within the survey area.

All sightings of birds in the shoreline area were recorded including the locations of breeding birds and simple count data on the numbers of birds present and any additional information on behaviour and habitat use by foraging or loafing birds.

Two visits were undertaken; the first visit was on 23 June 2015 and the second on 6 July 2015. A third visit was not considered necessary given the late stage in the season. On each visit, a predetermined route was followed through the site which allowed all areas to within approximately 100m to be approached, stopping at regular intervals to scan around in all directions and to listen for calls and songs. A different route was taken during each visit. The location, movement and behaviour of all species observed were recorded onto field maps. In areas where access was not possible due to presence of livestock, areas were surveyed from suitable vantage points on adjacent land.

All surveys were undertaken in suitable weather conditions (wind speed less than Beaufort force 4, avoiding heavy rain and fog) with good visibility (Table 2.1).

Table 2.1 Survey dates, times and weather conditions

Date	Start time	End time	Wind	Precipitation	Notes
23 June 2015	10:00	13:45	F3-4 SW veering West	None	Excellent visibility (>10km) with high cloud cover (>500m base height) decreasing from 100% to 50%.
6 July 2015	09:55	13:50	F4 W	None	Visibility improved from good (<2km) to excellent (>10km) during the duration of the survey with low cloud cover (~200m base height) clearing to clear skies and bright sunshine.



2.2 LIMITATIONS

The Brown and Shepherd (1993) method for surveying breeding waders requires a minimum of two visits, one early in the season (early April–mid-May) and the second, mid-May to late June. The O’Brien and Smith (1992) method requires three visits between 15 April and 19 June. Due to the timing at which the Sheep Skerry site first became an option as a possible cable landfall location, the early part of the breeding season had already passed. However due to the exceptionally wet and cold spring in 2015, it is likely that the cold weather delayed the onset of the breeding season for most species. The findings recorded during the two visits that were undertaken are considered sufficient to provide representative data on the number and distribution of the species breeding in the area taking into consideration the possibility that a few breeding attempts that had already fledged or failed may have been missed.



3 FINDINGS

3.1 BREEDING BIRDS

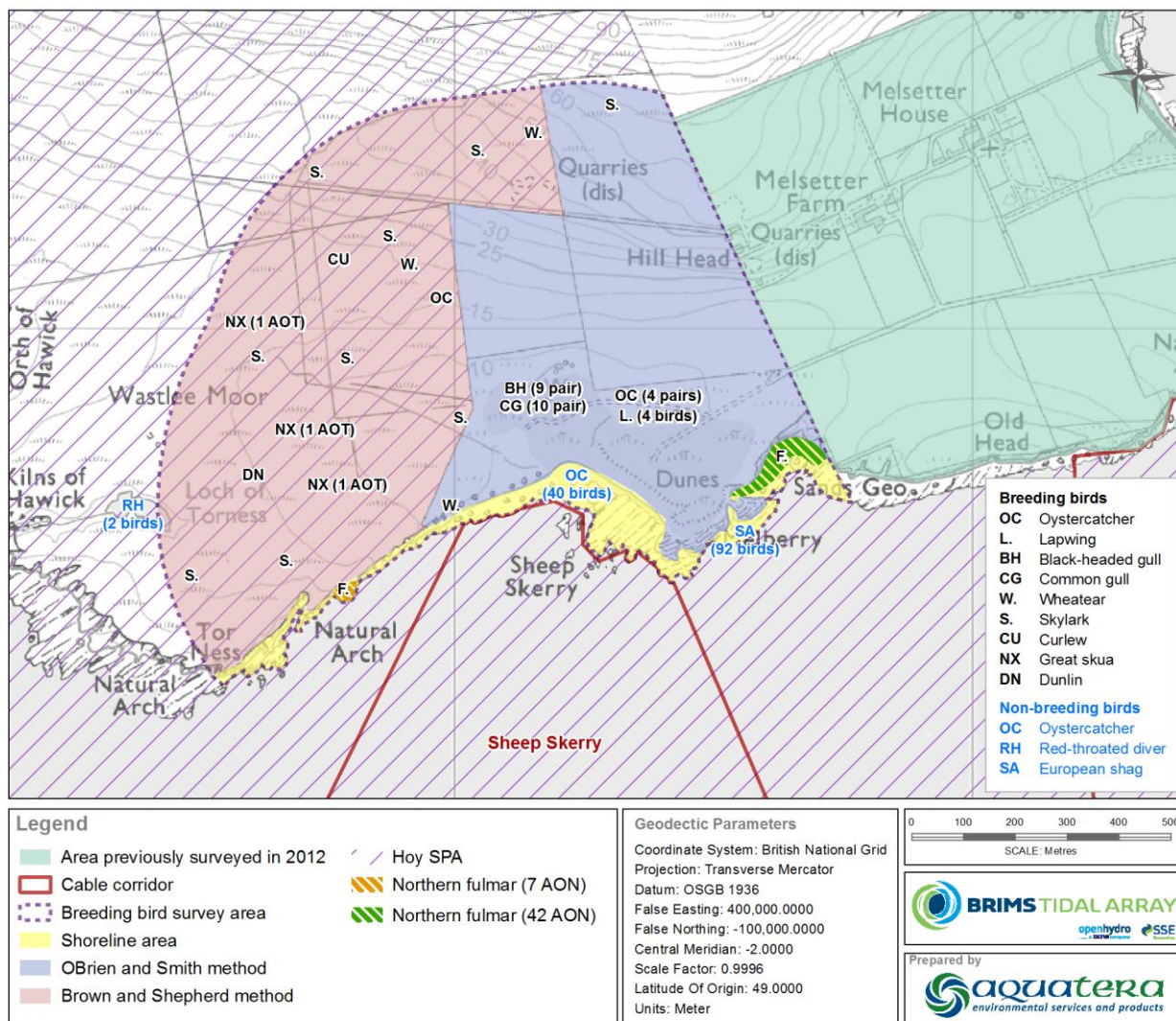
A summary of all species considered likely to have bred within the survey area are summarised in Table 3.1 based on the observations across the two visits. For each of the wader species, an estimate of the overall number of breeding pairs has been calculated according to the methods described in Gilbert *et al.* (1998).

Table 3.1 Species likely to have bred within the survey area

Species	Conservation status	Number
Curlew <i>Numenius arquata</i>	UK BAP	1 pair
Lapwing <i>Vanellus vanellus</i>	UK BAP	4 birds (2 pair)
Skylark <i>Alauda arvensis</i>	UK BAP	9 pair
Black-headed gull <i>Chroicocephalus ridibundus</i>	Scottish Biodiversity List	9 pair
Oystercatcher <i>Haematopus ostralegus</i>		5 pair
Wheatear <i>Oenanthe oenanthe</i>		3 pair
Common gull <i>Larus canus</i>		10 pair
Great skua <i>Stercorarius skua</i>	Hoy SPA qualifying species	3 AOT
Dunlin <i>Calidris alpina</i>	Scottish Biodiversity List	1 pair
Northern fulmar <i>Fulmarus glacialis</i>		49 AONs

An overall summary map showing the approximate distribution of all breeding species has been compiled based on the observations across the two visits (see Figure 3.1).

Figure 3.1 Breeding and non-breeding birds recorded at Sheep Skerry



The enclosed field boundary adjacent to the Sheep Skerry export cable corridor AoS is of low ornithological interest with two pairs of lapwing *Vanellus vanellus* (a UK BAP priority species) present. A small mixed colony of black-headed gulls *Chroicocephalus ridibundus* and common gulls *Larus canus*, four pairs of oystercatcher *Haematopus ostralegus* and one pair of wheatear *Oenanthe oenanthe* were also present in this area. The other enclosed fields within the survey area were being utilised as grazing pasture for cattle and sheep, with one field reseeded with barley; therefore these fields held little of ornithological interest. The open moorland within the survey area lies within the Hoy SPA. Great skua *Stercorarius skua* was the only Hoy SPA qualifying species recorded with three apparently occupied territories (AOTs). Also recorded within the moorland area was one pair of dunlin *Calidris alpina*, one pair of curlew *Numenius arquata*, one pair of oystercatcher and at least nine skylark *Alauda arvensis* territories.

On the shoreline, the only breeding birds recorded were 49 Northern fulmar apparently occupied nests (AONs), the majority of which were on the low cliffs at Sands Geo at the eastern edge of the survey area with a small group to the west of Sheep Skerry cable corridor AoS.

3.2 NON-BREEDING BIRDS

Locations of non-breeding birds recorded during the surveys are shown on Figure 3.1.

Two red-throated divers *Gavia stellata* (a Hoy SPA qualifying feature) were recorded just outside the Study Area however these birds were non-breeders with no signs of breeding recorded.

Shags *Phalacrocorax aristotelis* were present along the shoreline on 23 June with a large gathering of 92 birds on the rocks at Melberry with some birds actively foraging in the inshore waters. A flock of 40 oystercatchers were recorded within the Sheep Skerry export cable corridor AoS on 6 July however these were non-breeders; either loafing, feeding or on passage to other areas.



4 REFERENCES

- Brown, A., F., and Shepherd, K., B., 1993. *A method for censusing upland breeding waders*. *Bird Study* 40: 189-195.
- Gilbert, G., Gibbons, D.,W., and Evans, J., 1998. *Bird Monitoring Methods: A Manual of Techniques for key UK species*. RSPB.
- O'Brien, M., and Smith, K.,W., 1992. Changes in the status of waders breeding on wet lowland grassland in England and Wales between 1982 and 1989. *Bird Study*: 165-176.

