



SP Energy Networks

400kV OHL ZV Diversion

Appendix 5.1: Ornithology

Technical Report

Final report

Prepared by LUC

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Chapter 1

Introduction

1.1 This report supports **Chapter 5: Ornithology** of the 400kV OHL ZV Diversion Environmental Appraisal Report (EAR) and details the results of ornithology surveys undertaken by LUC at the location of the proposed 400kV OHL ZV Diversion, hereafter termed the 'Proposed Development', located approximately 5km south-east of Douglas in South Lanarkshire. Surveys were carried out between April and June 2023.

1.2 Surveys were undertaken to collect data on the baseline bird community at the location of the Proposed Development during the breeding season and aimed to establish the composition of breeding bird community.

1.3 Surveys focussed on collecting information on the presence, abundance and distribution of breeding birds of conservation concern. These are species listed on Annex 1 of the EU Bird Directive, species listed on Schedule 1 of the Wildlife and Countryside Act (1981) (WCA), and species on the Red List of Birds of Conservation Concern (BoCC) (Stanbury et al. 2021)¹.

¹ Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second

IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

Chapter 2

Consultations and Desk Study

2.1 The Proposed Development does not pass through any statutorily designated sites that cite ornithological interests. The nearest Special Protection Area (SPA) is the Muirkirk and North Lowther Uplands SPA approximately 5.8km to the south-west, designated for breeding and wintering hen harrier (*Circus cyaneus*) and for breeding golden plover (*Pluvialis apricaria*), merlin (*Flaco columbarius*), peregrine (*Falco peregrinus*) and short-eared owl (*Asio flammeus*). This SPA is also designated as the Muirkirk Uplands Site of Special Scientific Interest (SSSI).

2.2 No data requests were made in relation to the Proposed Development.

Chapter 3

Field methods

Survey Periods

3.1 In 2023, a four-visit breeding bird survey was undertaken on 26 April (visit 1), 26 May (visit 2), 20 June (visit 3) and 29 June (visit 4).

Survey Areas

3.2 Breeding bird surveys were undertaken in 2023 within at approximately 500m of the Proposed Development (see EAR **Figure 5.1**).

Survey Personnel

3.3 Surveys were undertaken by Andrew Matthews (AM), Sean Kerr (SK) and Victoria Curley (VC). All are experienced surveyors and had received appropriate training in the field survey methods being used.

Field Surveys

Breeding Bird Surveys (BBS)

3.4 Breeding birds on open ground habitat were surveyed by undertaking walkover surveys of habitat within approximately 500m of the Proposed Development between April and June 2022 (**Figure 5.1**). The survey area was part of a wider survey area, in place to collect baseline ornithology data for the proposed Glenmuckloch to Redshaw Reinforcement project².

3.5 Surveys were undertaken using a modified version of the Brown and Shepherd (1993)³ method for upland breeding waders. The whole survey area was visited on four occasions in 2023: 26th April (visit 1); 26th May (visit 2); 20th June (visit 3); and 29th June (visit 4) (**Table 3.1; Appendix B: Table B1**).

² Details of the project can be found on the project page here: <https://www.spenergynetworks.co.uk/pages/grrp.aspx>

³ Brown, A.F. & Shepherd, K.B. (1993) A method for censusing upland breeding waders, *Bird Study*, 40:3, 189-195.

Table 3.1: Breeding bird survey effort (note that duration is for the full survey area, not just the 500m buffer of the Proposed Development)

Session ID	Date	Start time	Finish time	Duration*	Surveyor
230426_3	26/04/23	1030	1400	03:30	SK
230526_1	26/05/22	0855	1255	04:00	AM
230620_1	20/06/22	0745	1300	04:15	VC
230629_1	29/06/23	1100	1600	05:00	AM

3.6 Surveyors approached to within 100m of all parts of the survey area, aiming to maintain a constant search effort over the area. Surveyors scanned all areas and listened for bird calls to locate target species and classify behaviour to help ascertain their breeding status.

3.7 The location of individuals was mapped, and a record was made of any behaviour characteristic of breeding.

3.8 Curlew records were interpreted for each visit using species-specific distance thresholds, to estimate the likely distribution of breeding territories. A breeding curlew population estimate was obtained by interpreting data from all four survey visits to assign estimated territory centres and using behaviour records to assign breeding status for each territory.

Chapter 4

Results

Raptors

4.1 Buzzard and kestrel were occasionally seen during BBS, but no breeding locations were identified (**EAR Figure 5.1**).

Waders

Curlew

Occurrence and status

4.2 Curlew were present within and adjacent to the survey area. Analysis of recorded behaviour and the location of records throughout the survey period suggested that two curlew territories were present, one centred to the north and one centred to the south of the Proposed Development (see **EAR Figure 5.1**).

4.3 Oystercatcher was present on one visit, but there was no evidence of a breeding attempt.

Other species

Occurrence and status

4.4 Several relatively common passerine species were recorded during BBS, including skylark, dunnoek, reed bunting, mistle thrush, stonechat and wheatear (see **EAR Figure 5.1**). Raven was recorded once.

Appendix A

Target Species Lists

A.1 Survey species lists

A-list species	B-list species	C-list species
Red-throated diver	Whooper swan	Cormorant
Black-throated diver	Greylag goose	Heron
Common scoter	Barnacle goose	Buzzard
White-tailed eagle	White-fronted goose	Sparrowhawk
Golden eagle	Pink footed goose	Kestrel
Osprey	Brent goose	Red grouse
Red kite	Bean goose	Grey partridge
Marsh harrier	Golden plover	Lapwing
Hen harrier	Dunlin	Redshank
Honey buzzard	Greenshank	Common sandpiper
Goshawk	Whimbrel	Oystercatcher
Merlin	Wood sandpiper	Snipe
Peregrine	Terns	Woodcock
Hobby	Arctic skua	Herring gull
Curlew	Great skua	Cuckoo
Barn owl		Ring ouzel
Short-eared owl		Raven
Black grouse		Marsh tit
Capercaillie		Willow tit
Nightjar		G'hopper warbler
Chough		Wood warbler
		Starling
		Ring ouzel
		Song thrush
		Mistle thrush
		Spotted flycatcher
		Pied flycatcher
		Whinchat
		Stonechat
		House sparrow
		Tree sparrow
		Yellow wagtail
		Grey wagtail
		Tree pipit
		Hawfinch
		Linnet
		Twite
		Lesser redpoll
		Crested tit
		Yellowhammer
		Corn bunting
		Reed bunting
		Crossbill

Appendix B

Tables

Table B.1: Weather recorded during breeding bird survey sessions (*Precipitation codes: 0 – dry; 1 – intermittent light rain; 2 intermittent heavy rain; 3 – continuous light rain; 4 – continuous heavy rain)

Session_ID	Survey type	CLOUD COVER (10ths)	CLOUD HEIGHT (m)	WIND FORCE	WIND DIRECTION	VISIBILITY (km)	PRECIP.*
230426_3	Breeding bird survey	8	800	3	E	5	0
230526_1	Breeding bird survey	3	1000	4	NE	5	0
230620_1	Breeding bird survey	10	800	3	S	5	0
230629_1	Breeding bird survey	4	1000	4	W	5	0