





## Appendix B: Wintering Bird Survey

16/12/2024





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# 1. INTRODUCTION

## BACKGROUND

- 1.1. Neo Environmental Ltd has been appointed by Renewable Energy Systems (RES) (the “Applicant”) to undertake Environmental and Planning Services for a proposed solar farm extension (the “Proposed Development”) to the Ballydonagh Solar Farm (Ref: 23/61049) on lands at Ballydonagh, Skecoor, Cloonineen, Lisheenaguil, and Kiltormer East Co. Galway (the “Application Site”).

## Development Description

- 1.2. The proposed solar farm extension will consist of the construction of PV panels mounted on metal frames, access entrances and tracks (existing, upgrading and new), underground cabling, inverter substations, perimeter fencing with CCTV cameras and access gates, watercourse crossings and a gated watercourse crossing, temporary construction compounds and all ancillary grid infrastructure and associated works.

## Site Description

- 1.3. The area of the Proposed Development (the “Application Site”) lies at an elevation of approximately 65.7 – 86m AOD and covers a total area of c. 56.2 hectares across 4 sections of land. It is centred at approximate Irish Grid Reference (IGR) X (ITM) X 583053 Y 718841 and is located c. 2.3 km west of the R355. It is approximately 11km south-southwest of Ballinasloe, 15.5km north of Portumna, 17km west-northwest of Banagher and 20km east of Loughrea.
- 1.4. The Application Site comprises of 26 fields (see **Figure 4, Volume 2 - Field Numbers**) of agricultural land primarily used for pastoral farming and bound by trees, hedgerows and post-and-wire fencing. The surrounding context is predominately agriculture with pockets of forestry and peatland and punctuated by individual properties, farmsteads and ribbon development associated with the minor and regional road network. Fields are typically small to medium in scale and similar in character to the Application Site lands.
- 1.5. However, nearby settlements within the study area including Kiltormer (c. 1km northwest) and Laurencetown (c. 3.9km northeast) contain a range of land uses including commercial, recreational and ecclesiastical.
- 1.6. Access to the northwest section of the Application Site will be gained from the L4322 to the north. Access to the southeast and southwest sections of the Application Site will be accessed from an unnamed road that connects to the L8716 which is c. 1km east-northeast.

## Statement of Authority

- 1.7. This bird survey and assessment was carried out by Neo Environmental Senior Ecologist, Louis Maloney.
- 1.8. Louis Maloney has circa seven years of professional ecological experience. This includes terrestrial and marine surveys covering a wide range of fauna and flora such as bird (2 years' of surveying), mammal and vegetative surveys. In addition, Louis has been involved in the management of large variety of projects involving: Environmental Impact Assessment ("EIA"), Natura Impact Statement ("NIS"), Ecological Impact Assessment ("EclA"), Biodiversity Management Plan ("BMP") and Net Gain Assessment ("NGA") reports. He holds a BSc in Marine Science from the National University of Ireland, and an MSc in Conservation Behaviour – Marine and Terrestrial Science. Louis is in the process of applying for a Full level membership with CIEEM.
- 1.9. David Mulholland is a Graduate Ecologist with 1.5 years of experience working in the ecology and conservation sectors. David is a Qualifying member of CIEEM, holding a BSc (Hons) in Biological Sciences with Professional Studies, along with a MSc in Conservation Biology and Ecological Management. He has experience conducting Biodiversity Checklist Reports, Preliminary Roost Assessments, Dawn & Dusk Bat Surveys, Reconnaissance Bird Surveys along with aiding in the construction of Bat Survey Reports, Ecological Appraisals and Ornithology Reports.



## 2. METHODOLOGY

### DESKTOP STUDY

2.1. A pre-survey data search was conducted in order to collate existing information of ornithological interest from the footprint of the Proposed Development and its surrounding area. The data search utilised the following information sources:

- Collation of bird atlas data and other known bird records from the National Biodiversity Data Centre ([www.biodiversityireland.ie](http://www.biodiversityireland.ie)).
- Birdwatch Ireland (BWI) - <https://birdwatchireland.ie/> provides open access data for the Irish Wetland Bird Survey (I-WeBS). I-WeBS is an annual survey of wintering birds undertaken at a national level, focussing on wetland sites utilised by wintering birds. Bird count data for the two closest sites I-WeBS sites was accessed and has been presented in this report.
- Conservation objectives of the River Suck Callows SPA (004097), River Little Brosna Callows SPA (004086), Middle Shannon Callows SPA (004096) were accessed via - <https://www.npws.ie/>
- Review of Ordnance Survey mapping and aerial photography of the proposed scheme area and its environs.
- The supporting Natura 2000 Impact Statement, outlining nearby designated sites and their qualifying characteristics.

### FIELD SURVEY

2.2. Surveys were completed over 6 days. The entirety of the Application Site was covered on three occasions: 24<sup>th</sup> -25<sup>th</sup> January, 21<sup>st</sup> – 22<sup>nd</sup> February, 15<sup>th</sup> – 16<sup>th</sup> of March - 2023. The wintering bird surveys consisted of walking transects parallel to all linear features on site.

2.3. The surveys aimed to determine whether the site is used as a winter roost by wildfowl, waders and migratory birds. During the surveys, all bird species heard or seen within and adjacent to the site were recorded. The surrounding fields were scanned from vantage points that gave unobstructed views over potentially suitable habitat for notable species. A note was also made of birds flying overhead.

2.4. All bird species were recorded using standard British Trust for Ornithology codes<sup>1</sup>, and a note of the number of birds of each species present was made. The winter surveys were undertaken using Hontry 8x42 binoculars and ESSLNB Spotting Scope 25-75X70 spotting scope. As summarised in **Table 2.1**, surveys were undertaken in weather deemed appropriate for carrying out bird survey work, i.e. avoiding periods of high winds, heavy rainfall and poor visibility<sup>2</sup>.

**Table 2-1: Wintering bird survey details**

Date	Survey Method	Survey – Time of Day	Weather
24/01/2023	Transect	Sunrise/morning	Temp: 7 - 9°C Precipitation: None Wind: 3 – 4 m/s Cloud cover: 4/8
25/01/2023	Transect	Sunrise/morning	Temp: 9 - 10°C Precipitation: None Wind: 4m/s Cloud cover: 4/8
21/02/2023	Transect	Sunrise/morning	Temp: 8 - 11°C Precipitation: None Wind: 4m/s Cloud cover: 8/8
22/02/2023	Transect	Sunrise/morning	Temp: 3 - 8°C Precipitation: None Wind: 2m/s Cloud cover: 1/8
15/03/2023	Transect	Sunrise/morning	Temp: 7 - 11°C Precipitation: Light Rain Wind: 4m/s Cloud cover: 8
16/03/2023	Transect	Sunrise/morning	Temp: 9 - 12°C Precipitation: Intermittent showers Wind: 3 – 6m/s Cloud cover: 4/8

<sup>1</sup> Available at: <https://www.bto.org/british-list>

<sup>2</sup> Bibby C.J., Burgess N.D., Hill D.A. & Mustoe S.H. (2000). Bird Census Techniques. Second Edition. Academic Press.

### 3. RESULTS

#### DESK STUDY

- 3.1. **Table 3-1** details bird species present in National Biodiversity Data Centre (NBDC) datasets for the 10km grid square within which the site is situated (M81 and M82).
- 3.2. **Table 3-1** also indicates species listed in Annex I of the EU Birds Directive and those listed in the Birds of Conservation Concern in Ireland (BoCCI) Amber or Red List<sup>3</sup>. Red-listed species are those of highest conservation priority and Amber-listed species are those which are of secondary priority. These species include those that the SPAs and SACs outlined in the Natura 2000 Impact Statement are designated for.

**Table 3-1: NBDC records of wildlife act birds for 10km grid square M81 & M82**

Common Name	Scientific Name	Annex I	BoCCI
Barn Owl	<i>Tyto alba</i>	No	
Barn Swallow	<i>Hirundo rustica</i>	No	
Black-billed Magpie	<i>Pica pica</i>	No	
Blackcap	<i>Sylvia atricapilla</i>	No	
Black-headed Gull	<i>Larus ridibundus</i>	No	
Blue Tit	<i>Cyanistes caeruleus</i>	No	
Brambling	<i>Fringilla montifringilla</i>	No	
Chaffinch	<i>Fringilla coelebs</i>	No	
Coal Tit	<i>Periparus ater</i>	No	
Common Blackbird	<i>Turdus merula</i>	No	
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	No	
Common Buzzard	<i>Buteo buteo</i>	No	
Common Chiffchaff	<i>Phylloscopus collybita</i>	No	
Common Cuckoo	<i>Cuculus canorus</i>	No	
Common Grasshopper Warbler	<i>Locustella naevia</i>	No	
Common Kestrel	<i>Falco tinnunculus</i>	No	
Common Kingfisher	<i>Alcedo atthis</i>	Yes	

<sup>3</sup> Gilbert G, Stanbury A and Lewis L (2021), "Birds of Conservation Concern in Ireland 2020 –2026"



Common Linnet	<i>Carduelis cannabina</i>	No	
Common Moorhen	<i>Gallinula chloropus</i>	No	
Common Pheasant	<i>Phasianus colchicus</i>	No	
Common Raven	<i>Corvus corax</i>	No	
Common Redshank	<i>Tringa totanus</i>	No	
Common Sandpiper	<i>Actitis hypoleucos</i>	No	
Common Snipe	<i>Gallinago gallinago</i>	No	
Common Starling	<i>Sturnus vulgaris</i>	No	
Common Swift	<i>Apus apus</i>	No	
Common Whitethroat	<i>Sylvia communis</i>	No	
Common Wood Pigeon	<i>Columba palumbus</i>	No	
Corn Crake	<i>Crex crex</i>	Yes	
Dunlin	<i>Calidris alpina</i>	Yes	
Eurasian Collared Dove	<i>Streptopelia decaocto</i>	No	
Eurasian Curlew	<i>Numenius arquata</i>	No	
Eurasian Jackdaw	<i>Corvus monedula</i>	No	
Eurasian Jay	<i>Garrulus glandarius</i>	No	
Eurasian Siskin	<i>Carduelis spinus</i>	No	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	No	
Eurasian Teal	<i>Anas crecca</i>	No	
Eurasian Treecreeper	<i>Certhia familiaris</i>	No	
Eurasian Wigeon	<i>Anas penelope</i>	No	
Eurasian Woodcock	<i>Scolopax rusticola</i>	No	
European Golden Plover	<i>Pluvialis apricaria</i>	Yes	
European Goldfinch	<i>Carduelis carduelis</i>	No	
European Greenfinch	<i>Carduelis chloris</i>	No	
European Robin	<i>Erithacus rubecula</i>	No	
Fieldfare	<i>Turdus pilaris</i>	No	
Goldcrest	<i>Regulus regulus</i>	No	
Great Cormorant	<i>Phalacrocorax carbo</i>	No	
Great Tit	<i>Parus major</i>	No	

Greater White-fronted Goose	Anser albifrons	Yes	
Greenland White-fronted Goose	Anser albifrons subsp. flavirostris	No	
Grey Heron	Ardea cinerea	No	
Grey Partridge	Perdix perdix	No	
Grey Wagtail	Motacilla cinerea	No	
Duncock	Prunella modularis	No	
Hen Harrier	Circus cyaneus	Yes	
Herring Gull	Larus argentatus	No	
Hooded Crow	Corvus cornix	No	
House Martin	Delichon urbicum	No	
House Sparrow	Passer domesticus	No	
Jack Snipe	Lymnocyptes minimus	No	
Lesser Black-backed Gull	Larus fuscus	No	
Lesser Redpoll	Carduelis cabaret	No	
Little Egret	Egretta garzetta	Yes	
Little Grebe	Tachybaptus ruficollis	No	
Long-eared Owl	Asio otus	No	
Long-tailed Tit	Aegithalos caudatus	No	
Mallard	Anas platyrhynchos	No	
Meadow Pipit	Anthus pratensis	No	
Merlin	Falco columbarius	Yes	
Mistle Thrush	Turdus viscivorus	No	
Mute Swan	Cygnus olor	No	
Northern Lapwing	Vanellus vanellus	No	
Red Grouse	Lagopus lagopus	No	
Redwing	Turdus iliacus	No	
Reed Bunting	Emberiza schoeniclus	No	
Rock Pigeon	Columba livia	No	
Rook	Corvus frugilegus	No	
Sand Martin	Riparia riparia	No	
Sedge Warbler	Acrocephalus schoenobaenus	No	

Sky Lark	<i>Alauda arvensis</i>	No	
Song Thrush	<i>Turdus philomelos</i>	No	
Spotted Flycatcher	<i>Muscicapa striata</i>	No	
Stock Pigeon	<i>Columba oenas</i>	No	
Stonechat	<i>Saxicola torquata</i>	No	
Tufted Duck	<i>Aythya fuligula</i>	No	
Bewicks Swan	<i>Cygnus columbianus</i>	Yes	
Water Rail	<i>Rallus aquaticus</i>	No	
White Wagtail	<i>Motacilla alba</i>	No	
Whooper Swan	<i>Cygnus cygnus</i>	Yes	
Willow Warbler	<i>Phylloscopus trochilus</i>	No	
Winter Wren	<i>Troglodytes troglodytes</i>	No	
Yellowhammer	<i>Emberiza citrinella</i>	No	

3.3. Each winter volunteers, NPWS Rangers and BirdWatch Ireland staff monitor wintering waterbird populations at defined wetland sites across the Republic of Ireland to keep track of species trends.

3.4. The study area is not covered by an Irish Wetland Bird Survey (I-WeBS site). **Table 3-2** details survey data was available for the nearest I-WeBS sites (**OR301** and **OR303**). The two sites being; Little Brosna Callows (code: OR301) (c. 0.12km from Proposed Site) and the Shannon Callows (OR303) (c. 0.10km from Proposed Site).

**Table 3-2: I-WeBS sites**

Common Name	Scientific Name	Subsite	Recording Wintering	Annex I	BoCCI
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2016/17 – 2019/20	No	
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Black-tailed Godwit	<i>Limosa limosa</i>	Shannon Callows	2014/15	No	
Black-tailed Godwit	<i>Limosa limosa</i>	Little Brosna Callows	2011/12 – 2020/21	No	



Coot	<i>Fulica atra</i>	Shannon Callows	2017/18, 2019/20 – 2020/21	No	
Coot	<i>Fulica atra</i>	Little Brosna Callows	2012/13 -2013/14	No	
Cormorant	<i>Phalacrocorax carbo</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2017/18 – 2018/19	No	
Cormorant	<i>Phalacrocorax carbo</i>	Little Brosna Callows	2011/12 – 2015/16, 2017/18 – 2020/21	No	
Curlew	<i>Numenius arquata</i>	Shannon Callows	2011/12, 2014/15, 2017/18, 2019/20 – 2020/21	No	
Curlew	<i>Numenius arquata</i>	Little Brosna Callows	2011/12 – 2013/14 & 2016/17 – 2020/21	No	
Dunlin	<i>Calidris alpina</i>	Shannon Callows	2014/15	Yes	
Dunlin	<i>Calidris alpina</i>	Little Brosna Callows	2011/12 – 2019/2020	Yes	
Gadwall	<i>Mareca strepera</i>	Shannon Callows	2011/12	No	
Gadwall	<i>Mareca strepera</i>	Little Brosna Callows	2011/12 – 2014/15, 2017/18	No	
Glossy Ibis	<i>Plegadis falcinellus</i>	Shannon Callows	2018/19	No	
Golden Plover	<i>Pluvialis apricaria</i>	Shannon Callows	2011/12 – 2012/13, 2014/15 – 2016/17, 2018/19	Yes	
Golden Plover	<i>Pluvialis apricaria</i>	Little Brosna Callows	2011/12 – 2020/21	Yes	
Great Black-backed Gull	<i>Larus marinus</i>	Shannon Callows	2014/15	No	
Great Black-backed Gull	<i>Larus marinus</i>	Little Brosna Callows	2018/19	No	
Great Crested Grebe	<i>Podiceps cristatus</i>	Shannon Callows	2012/13, 2014/15	No	
Great Crested Grebe	<i>Podiceps cristatus</i>	Little Brosna Callows	2012/13 & 2019/20	No	

Greenland White-fronted Goose	<i>Anser albifrons flavirostris</i>	Little Brosna Callows	2011/12 – 2019/20	Yes	
Greylag Goose	<i>Anser anser</i>	Little Brosna Callows	2017/18 – 2020/21	No	
Grey heron	<i>Ardea cinerea</i>	Shannon Callows	2012/13, 2014/15., 2017/18 – 2019/20	No	
Grey heron	<i>Ardea cinerea</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Golden Eye	<i>Bucephala clangula</i>	Shannon Callows	2012/13	No	
Glossy ibis	<i>Plegadis falcinellus</i>	Shannon Callows	2018/19	No	N/A
Herring Gull	<i>Larus argentatus</i>	Shannon Callows	2011/12 – 2012/13	No	
Herring Gull	<i>Larus argentatus</i>	Little Brosna Callows	2019/20	No	
Kingfisher	<i>Alcedo atthis</i>	Little Brosna Callows	2015/16 – 2016/17 & 2018/19 – 2019/20	Yes	
Lapwing	<i>Vanellus vanellus</i>	Shannon Callows	2011/12 – 2012/13, 2014/15 – 2020/21	No	
Lapwing	<i>Vanellus vanellus</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Lesser Black-backed gull	<i>Larus fuscus</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2017/18, 2019/20		
Lesser Black-backed gull	<i>Larus fuscus</i>	Little Brosna Callows	2012/13 – 2014/15	No	
Little Egret	<i>Egretta garzetta</i>	Shannon Callows	2017/18, 2019/20	Yes	
Little Egret	<i>Egretta garzetta</i>	Little Brosna Callows	2011/12 – 2016/17 & 2019/19	Yes	
Little grebe	<i>Tachybaptus ruficollis</i>	Shannon Callows	2011/2012, 2014/15, 2017/18	No	
Little grebe	<i>Tachybaptus ruficollis</i>	Little Brosna Callows	2011/12 – 2012/13 & 2019/20	No	

Mallard	<i>Anas platyrhynchos</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2017/18 – 2018/19	No	
Mallard	<i>Anas platyrhynchos</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Moorhen	<i>Gallinula chloropus</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2016/17 – 2018/19	No	
Moorhen	<i>Gallinula chloropus</i>	Little Brosna Callows	2012/13 – 2012/14 & 2018/19 – 2020/21	No	
Mute Swan	<i>Cygnus olor</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2016/17 – 2020/21	No	
Mute Swan	<i>Cygnus olor</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Oystercatcher	<i>Haematopus ostralegus</i>	Shannon Callows	2018/19		
Pink-footed Goose	<i>Anser brachyrhynchus</i>	Little Brosna Callows	2013/14	No	
Pintail	<i>Anas acuta</i>	Shannon Callows	2015/16, 2019/20 – 2020/21		
Pintail	<i>Anas acuta</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Pochard	<i>Aythya ferina</i>	Little Brosna Callows	2013/14 & 2015/16 & 2017/18 – 2019/2020	No	
Redshank	<i>Tringa totanus</i>	Shannon Callows	2017/18 – 2018/2019	No	
Redshank	<i>Tringa totanus</i>	Little Brosna Callows	2012/13 & 2018/19	No	
Ruff	<i>Philomachus pugnax</i>	Shannon Callows	2014/15	No	
Ruff	<i>Philomachus pugnax</i>	Little Brosna Callows	2013/14	No	
Shelduck	<i>Tadorna tadorna</i>	Little Brosna Callows	2011/12 & 2017/18	No	
Shoveler	<i>Spatula clypeata</i>	Shannon Callows	2011/12, 2017/18 – 2020/21	No	



Shoveler	<i>Spatula clypeata</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Snipe	<i>Gallinago gallinago</i>	Shannon Callows	2014/15	No	
Snipe	<i>Gallinago gallinago</i>	Little Brosna Callows	2011/12 – 2012/13 7 2014/15 & 2016/17 & 2018/19 – 2020/21	No	
Teal	<i>Anas crecca</i>	Shannon Callows	2012/13, 2014/15, 2017/18		
Teal	<i>Anas crecca</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Tufted Duck	<i>Aythya fuligula</i>	Shannon Callows	2014/15, 2017/18, 2019/20 – 2020/21	No	
Tufted Duck	<i>Aythya fuligula</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Water Rail	<i>Rallus aquaticus</i>	Shannon Callows	2017/18	No	
Water Rail	<i>Rallus aquaticus</i>	Little Brosna Callows	2017/18	No	
Wigeon	<i>Anas penelope</i>	Shannon Callows	2011/12 – 2012/13	No	
Wigeon	<i>Anas penelope</i>	Little Brosna Callows	2011/12 – 2020/21	No	
Whooper Swan	<i>Cygnus cygnus</i>	Shannon Callows	2011/12 – 2012/13, 2014/15, 2017/18 – 2020/21	Yes	
Whooper Swan	<i>Cygnus cygnus</i>	Little Brosna Callows	2011/12 – 2020/21	Yes	
Woodcock	<i>Scolopax rusticola</i>	Little Brosna Callows	2014/15	No	

## FIELD SURVEY

3.5. A total of 25 species of bird were recorded at the Proposed Development Site and adjacent survey area. Common Snipe, a red listed species was identified along with an Annex 1 species, Hen Harrier.

3.6. Of the remaining species recorded, five BoCCI amber species were recorded, the remaining 19 species are green status. **Table 3-3** summarises the species recorded during the wintering bird

surveys, along with their BoCCI status. Species recorded during each wintering bird survey (i.e. months January, February and March) are displayed in **Appendix 2E** of this report.

Table 3-3: Bird species recorded during wintering bird surveys

Common Name	Scientific Name	BoCCI	Annex I
Blackbird	<i>Turdus merula</i>	Green	
Blue Tit	<i>Parus caeruleus</i>	Green	
Bullfinch	<i>Pyrrhula pyrrhula</i>	Green	
Chaffinch	<i>Fringilla coelebs</i>	Green	
Coal Tit	<i>Periparus ater</i>	Green	
Common Snipe	<i>Gallinago gallinago</i>	Red	
Dunnock	<i>Prunella modularis</i>	Green	
Goldfinch	<i>Carduelis carduelis</i>	Green	
Great Tit	<i>Parus major</i>	Green	
Hooded Crow	<i>Corvus cornix</i>	Yellow	
Hen Harrier	<i>Circus cyaneus</i>	Yellow	✓
Jackdaw	<i>Corvus monedula</i>	Green	
Magpie	<i>Pica pica</i>	Green	
Mistle thrush	<i>Turdus viscivorus</i>	Green	
Pheasant	<i>Phasianus colchicus</i>	Green	
Pied wagtail	<i>Motacilla alba</i>	Green	
Redwing	<i>Turdus iliacus</i>	Green	
Robin	<i>Erithacus rubecula</i>	Green	
Rook	<i>Corvus frugilegus</i>	Green	
Skylark	<i>Alauda arvensis</i>	Yellow	
Song thrush	<i>Turdus philomelos</i>	Green	
Starling	<i>Sturnus vulgaris</i>	Yellow	
Tree Sparrow	<i>Passer montanus</i>	Yellow	
Woodpigeon	<i>Columba palumbus</i>	Green	
Wren	<i>Troglodytes troglodytes</i>	Green	

## DISCUSSION

- 3.7. The Application Site's primary habitats are improved agricultural grassland, wet grassland, scrub, dry calcareous and neutral grassland with mature hedgerows, treelines and drainage ditches along the site boundaries.
- 3.8. The wintering bird survey's primary objective is to assess whether the Proposed Development has the potential to support qualifying bird species from the surrounding SPAs as outlined in the supporting Natural 2000 Impact Statement, with particular focus on species that are known to occur in grassland habitats.
- 3.9. A total of 25 species of bird were recorded within, or immediately adjacent to, the proposed site during the six surveys undertaken from January 2023 to March 2023. Of these 19 were seen only in flight commuting over the site. The majority of the species recorded within the Application Site were common, green-listed bird species that are typical of farmland habitats.
- 3.10. Hen Harrier was identified within the development boundary of the Application Site during the wintering bird survey performed in March 2023. The Hen Harrier was perched on a branch of a tree which then proceeded to fly across the site till out of view. The large areas of improved agricultural grassland present, combined with high populations of passerine prey birds offer a valuable hunting habitat for Hen Harrier.
- 3.11. Oak-Ash-Hazel Woodland offers roosting habitats on the boundaries of the Application Site that further support their population. There will be no impact on these woodland habitats and there are no proposals to remove or otherwise damage them.
- 3.12. Due to the low area coverage of the proposed construction, disruption to Hen Harriers is likely to only occur during construction, with surrounding fields offering equally viable habitats to foraging within. **Therefore, it is considered that there will be no significant impact on Hen Harriers by the Application Site.**
- 3.13. Skylark are on the amber list due to agricultural intensification leading to a loss of suitable nesting habitat and lack of winter and summer food. Six Skylark were observed during the March wintering bird survey foraging/perching within the site boundary, see **Appendix 2 – Figure 1.3.**
- 3.14. Common Snipe are a BoCCI red listed species and are similarly threatened by agricultural intensification and the destruction of natural boggy and wet grasslands due to their ground-nesting behaviour. Snipe have experienced significantly declining breeding and wintering populations due to this loss of habitat.
- 3.15. As outlined in the LEMP (**Vol 3, Technical Appendix 1, Figure 1.9a**), it is recommended that species rich grassland is seeded on the application site to accommodate ground nesting birds.
- 3.16. The LEMP suggests that having a lightly sheep-grazed pasture with a tussocky native sward of varying heights from 20-50cm with a low stock rate through the spring and summer can be

beneficial. Providing a species rich grassland and preserving existing wet grassland habitats within the Application Site, the development will benefit local biodiversity by encouraging invertebrate prey which are key to the sole diet of both Skylark and Common Snipe chicks and important to adults in the spring and summer months. Overall, it is expected that the proposed development will have no significant impact

- 3.17. Tree Sparrow is an Amber listed species with a stable breeding population in Ireland. Tree Sparrow was identified during wintering bird surveys at the Application Site. The Application Site offers valuable foraging and nesting habitat for Tree Sparrow, with access to both hedgerows, improved agricultural grassland and Oak-Ash-Hazel woodland. Only c.728.5m<sup>2</sup> of vegetation and three trees will be removed during the construction period.
- 3.18. Due to the low area of the site that will be impacted by the proposed construction and the availability of adjacent, equally valuable and undisturbed habitat, the impact on Tree Sparrow will not be significant.
- 3.19. The majority of the other bird species are common generalist species which will adapt to change in the landscape and are seen within grasslands, hedgerows, woodlands and gardens. Best practice management of hedgerows will benefit them all alongside infilling any gaps using native species planting and a rich wildflower grassland mix. This both improves the habitat and biodiversity for these generalist species.
- 3.20. There is potential for short-term disturbance to ground nesting species such as skylark, and snipe. Best-practice construction safeguards will be implemented to ensure disturbance is kept to a minimum and is not expected to result in any reduction in numbers.

## 4. CONCLUSION

- 4.1. The results of the six wintering bird surveys undertaken between January and March 2023 indicate that the proposed site predominantly supports common and widespread bird species typical of farmland habitats present.
- 4.2. Results from the wintering bird surveys also conclude that the site is known to support one raptor species. Hen Harrier was identified perching and then flying across the site during one of the wintering bird surveys. The site also supports small numbers of wildfowl (Skylark and Common Snipe).
- 4.3. With the implementation of habitat enhancement measures it is considered that the Proposed Development is unlikely have negative effect on local bird species' populations. As the development will improve habitats for local bird species, there will likely be a positive effect, increasing foraging resources for common passerines and species of wildfowl, thus improving foraging resources of Hen Harrier.
- 4.4. Safeguards will be implemented to ensure any disturbance of such species is kept to a minimum.
- 4.5. Recommendations will be made in the **Biodiversity Management Plan (Volume 3, Technical Appendix 2, Appendix 2C)** for the improvement of the land under the solar panels to ensure that important habitats are not lost.

## 5. REFERENCES

1. Gilbert G, Stanbury A and Lewis L (2021), "Birds of Conservation Concern in Ireland 2020 – 2026". Irish Birds 43: 1–22
2. Bibby C.J., Burgess N.D., Hill D.A. & Mustoe S.H. (2000). Bird Census Techniques. Second Edition. Academic Press.
3. Gilbert G, Stanbury A and Lewis L (2021), "Birds of Conservation Concern in Ireland 2020 – 2026". Irish Birds 9: 523—544
4. Gilbert, G., Gibbons, D.W. & Evans, J. (1998) Bird Monitoring Methods - a Manual of Techniques for Key UK Species. RSPB: Sandy.



## 6. APPENDICIES

- Figure 1.1 – January Wintering Bird Survey
- Figure 1.2 - February Wintering Bird Survey Map
- Figure 1.3– March Wintering Bird Survey Map



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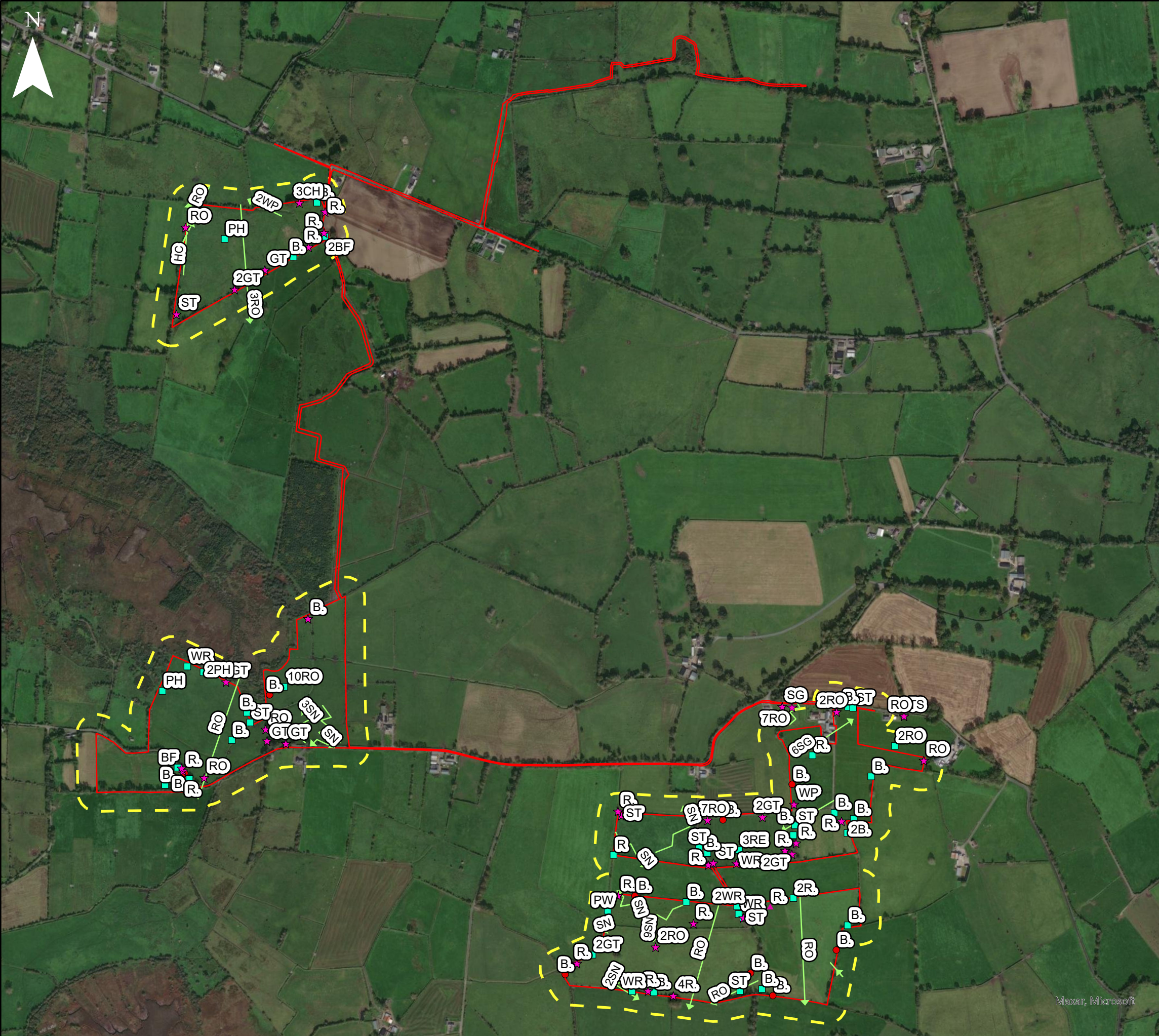
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# Ballydonagh Extension January Wintering Bird Survey Map Appendix B: Figure 1.1

## Key

 Development Boundary


 ESA Ecology

## Behaviour

 Alarm Calling

 Calling

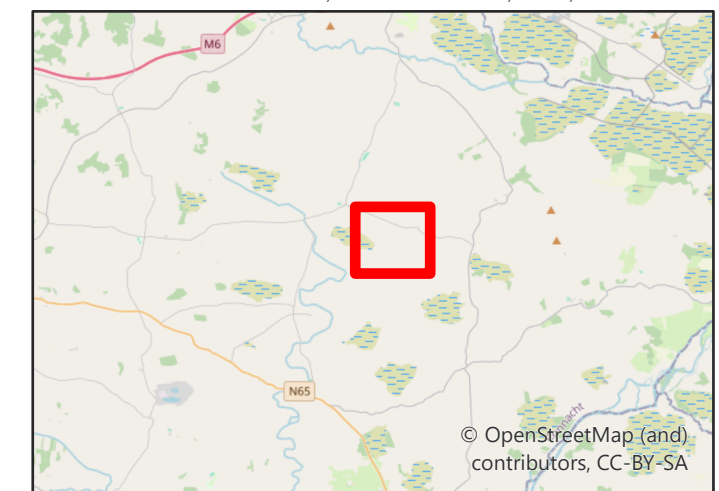
 Foraging

 Perching

 Fly Over

BTO Code	Bird Species
B.	Blackbird
ST	Song Thrush
RO	Rook
R.	Robin
SG	Starling
WP	Wood Pigeon
ST	Song Thrush
WR	Wren
PW	Pied Wagtail
GT	Gold Tit
RE	Redwing
RO	ROok
PH	Pheasant
BF	Bullfinch
CH	Chaffinch

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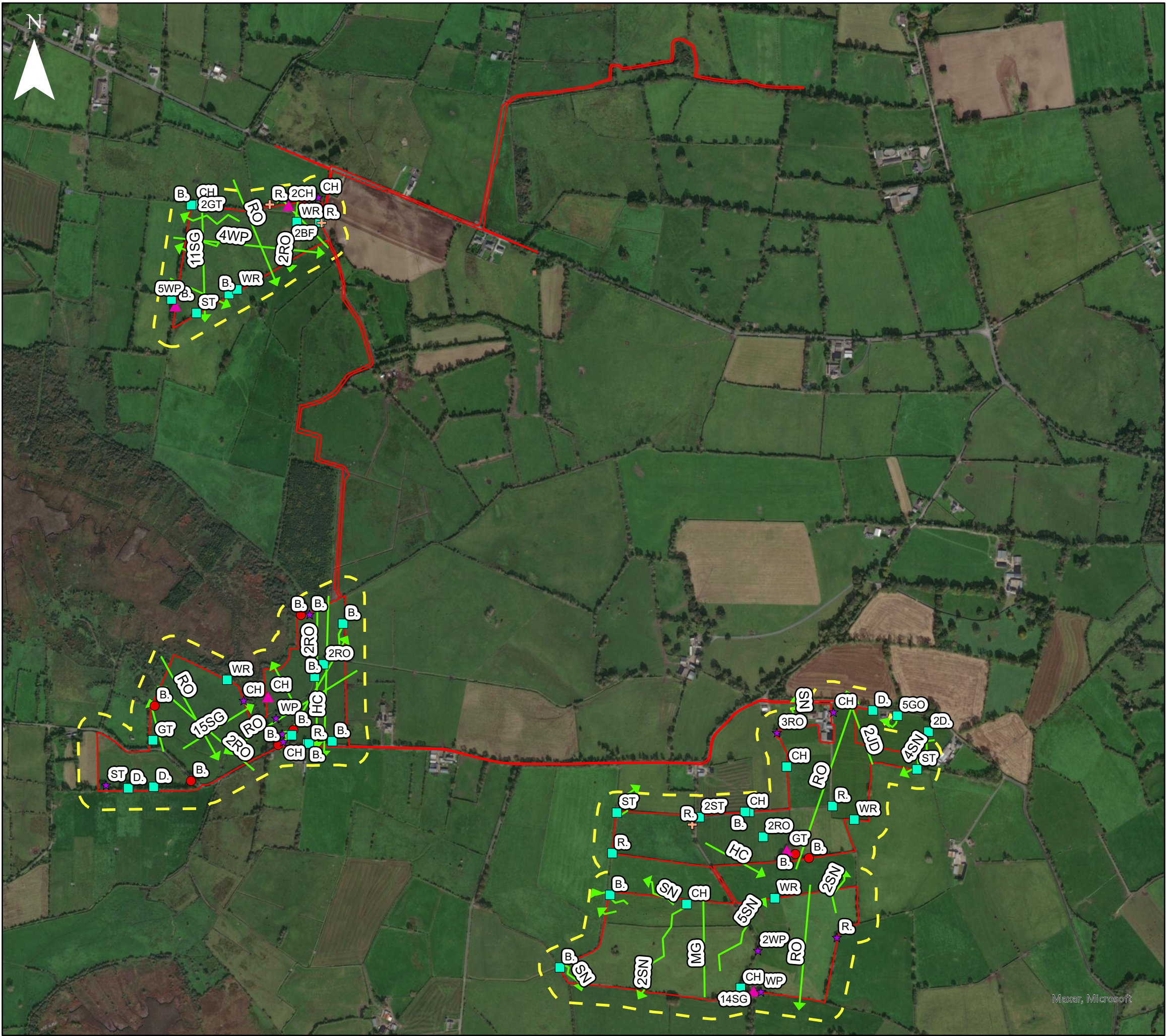
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Ballydonagh Extension  
February Wintering Bird Survey Map  
Appendix B: Figure 1.2

Key

Development Boundary

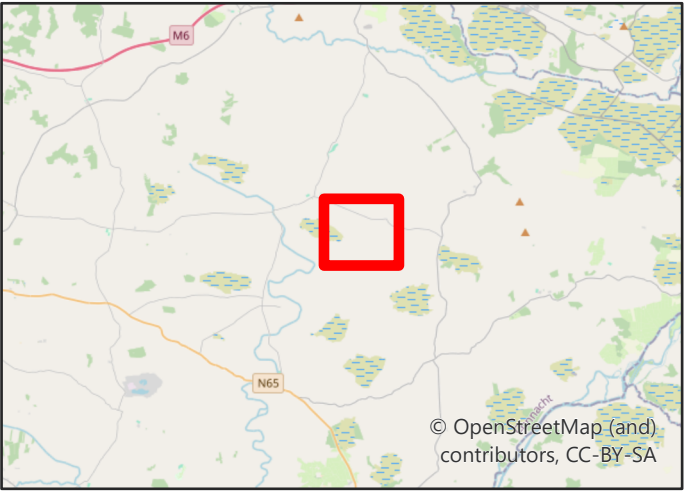
ESA Ecology

Behaviour

- Alarm Calling
- Calling
- Foraging
- Perching
- Singing
- Fly Over

BTO Code	Bird Species
SG	Starling
SN	Snipe
JD	Jackdaw
RO	Rook
HC	Hooded Crow
MG	Magpie
RO	Rook
B.	Blackbird
WP	Wood Pigeon
D.	Dunnock
CH	Chaffinch
GO	Goldfinch
WR	Wren
R.	Robin
BF	Bullfinch
ST	Song Thrush
GT	Great Tit

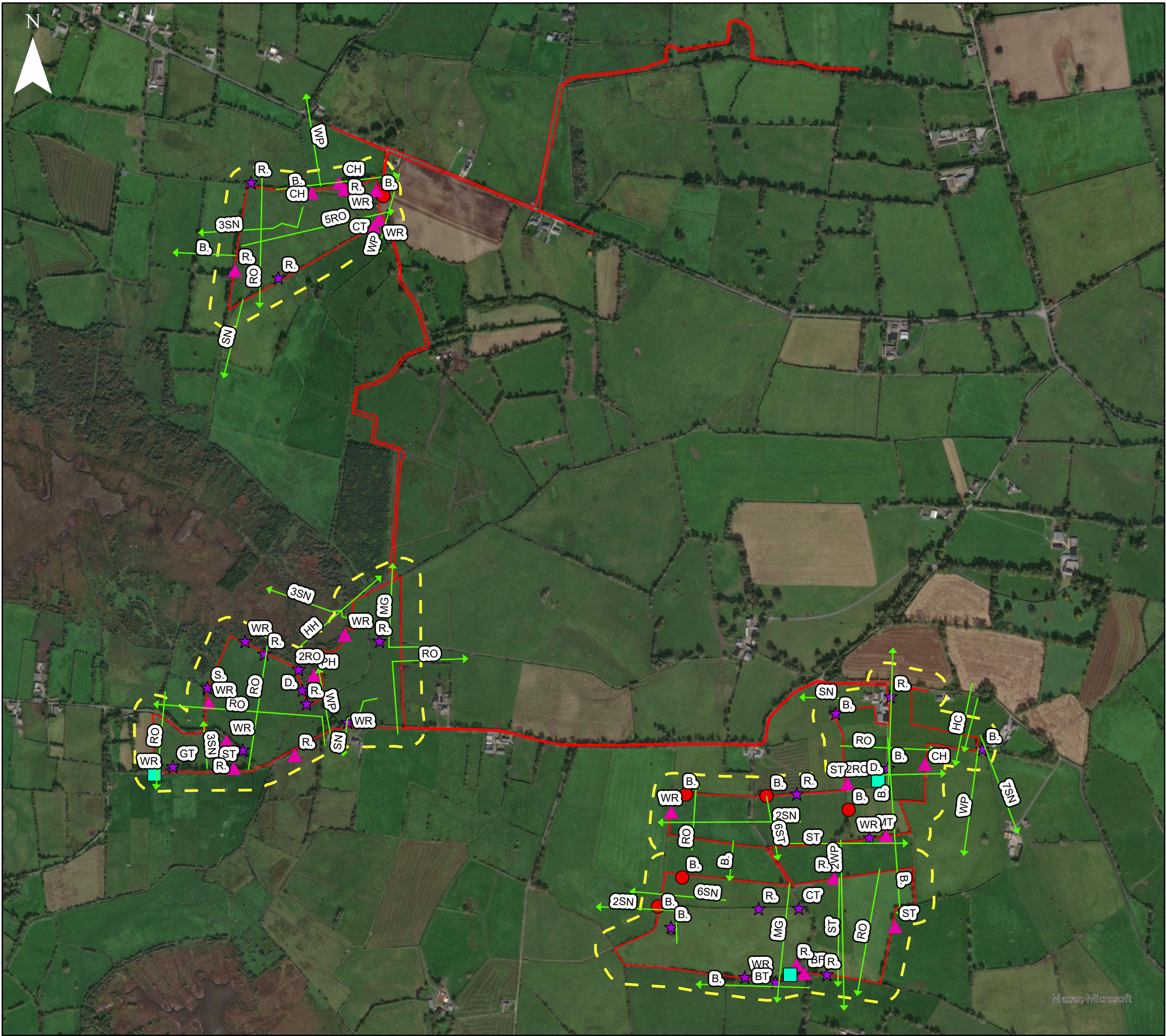
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Ballydonagh Extension  
March Wintering Bird Survey Map  
Appendix B: Figure 1.3

Key

- Development Boundary
- ESA Ecology

Behaviour

- Alarm Calling
- Calling
- Foraging
- Perching
- Fly Over

BTO Code	Bird Species
B.	Blackbird
ST	Song Thrush
WR	Wren
MT	Mistle Thrush
CH	Chaffinch
R.	Robin
D.	Dunnock
CT	Coal Tit
BT	Blue Tit
BF	Bullfinch
ST	Song Thrush
GT	Great Tit
S.	Skylark
RO	Rook
PH	Pheasant
SN	Snipe
WP	Wood Pigeon
MG	Magpie
HH	Hen Harrier

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