Appendix 9E

Wintering Bird Report

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SSE Tarbert Next Generation Power Station

Environmental Impact Assessment (EIAR) Volume II Appendix 9E: Wintering Bird Report

SSE Generation Ireland Limited

November 2023

Delivering a better world

SSE Tarbert Next Generation Power Station Environmental Impact Assessment Report (EIAR) Volume II Appendix 9E

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1. Introduction

1.1 Background

AECOM was instructed by SSE Generation Ireland Ltd to carry out an assessment of wintering birds within and adjacent to the Site of Proposed Development. The Proposed Development consists of a new Open Cycle Gas Turbine (OCGT) generator, administration building and workshop, ancillary plant, site works, services and grid connection on land within the boundary of the existing SSE Tarbert Power Station, in the townland of Tarbert Island, Co. Kerry. Full details of the Proposed Development are presented in the planning application and Chapter 5, EIAR Volume I.

The Site is located at the northern end of a small peninsula north of Tarbert and is surrounded by the Shannon Estuary to the west, north and east. A small tidal bay connected to the estuary borders the Site to the southwest, while a large mudflat is present to the southeast of the Site. A small deciduous woodland and improved agricultural fields are present to the south of the Site. For details of the Site and existing conditions please refer to Chapter 4, EIAR Volume I.

The study area for the wintering bird survey consists of the Site and all the lands immediately adjacent to them that could be observed from the lands owned by and under the control of SSE Generation Ireland Ltd. All of the study area was not, nor did it have to be accessed by foot, but was observed at distance. The study area included all of the visible shoreline habitats surrounding the Site, the lagoon and mudflats to the south, as well as the jetty and focused on all waterbirds and notable other species e.g., raptors. Passerine birds were excluded from the wintering bird survey.

This report should be read in conjunction with the Biodiversity Chapter (Chapter 9, EIAR Volume I).

1.2 Survey Aims

The aims of the surveys were to:

- Record wintering waterbirds birds within the study area and detail their number and species present.
- Record other notable species such as Annex I species and raptors using the study area and detail their number and species present.
- Note individual species activity and record notes on their habitat use within the study area.
- Identify any constraints relating to bird activity relevant to the Proposed Development; and,
- Identify appropriate mitigation measures, if relevant, should potential impacts be detected.

1.3 Quality Assurance

This project has been completed in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, its quality as well as covering all aspects of environmental and Health and Safety management. All staff members are committed to establishing and maintaining our accreditation to the relevant international standards namely BS EN ISO 9001:2008 and 14001:2004 and BS OHSAS 18001:2007. In addition, our IMS requires careful selection and monitoring of the performance of all sub consultants and contractors.

2. Legislation

The following international legislation has regard to protecting wildlife and habitat, specifically bird communities and their habitats in an Irish context:

- Directive 2009/147/EC, 92/43/EC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive).
- 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the Conservation of Wild Birds (the Birds Directive).
- The International Convention on Wetlands of International Importance 1971 (Ramsar Convention); and
- Wildlife Act 1976 to 2018, as amended by the Wildlife (Amendment) Act 2000 (hereafter referred to as the 'Wildlife Acts').

All bird species are protected under the Wildlife Acts from offences including intentional killing or injury, and disturbance during the breeding season (to include eggs, young, and nests, which are also protected).

Articles 3 – 9 of the Habitats Directive (92/43/EEC) provide the EU legislative framework of protecting rare and endangered species of flora and fauna, and habitats. Annex I of the Directive lists habitat types whose conservation requires the designation of Special Areas of Conservation (SAC). Priority habitats, such as active raised bogs, which are in danger of disappearing within the EU territory are also listed in Annex I. Annex II of the Directive lists animal and plant species (e.g., Marsh Fritillary, Atlantic Salmon) whose conservation also requires the designation of SAC. Annex IV lists animal and plant species in need of strict protection (e.g., lesser horseshoe bat and otter) and Annex V lists animal and plant species whose taking in the wild and exploitation may be subject to management measures.

Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (Birds Directive) has been substantially amended several times. In the interests of clarity and rationality the said Directive was codified in 2009 and is now cited as Directive 2009/147/EC. The Directive instructs Member States to take measures to maintain populations of all bird species naturally occurring in the wild state in the EU (Article 2). Such measures may include the maintenance and/or re-establishment of habitats in order to sustain these bird populations (Article 3). A subset of bird species has been identified in the Directive and are listed in Annex I as requiring special conservation measures in relation to their habitats. These species have been listed on account of inter alia: their risk of extinction; vulnerability to specific changes in their habitat; and/or due to their relatively small population size or restricted distribution. Special Protection Areas (SPA) are identified and classified for these Annex I listed species and for regularly occurring migratory species, paying particular attention to the protection of wetlands (Article 4).

3. Methods

3.1 Field Survey

The survey method followed was derived from that of the Wetland Bird Survey (WeBS) as outlined by the British Trust for Ornithology (BTO) on its website. The method employed, based on look-see methods described by Bibby *et al.* (2000), has been adapted for use at waterbodies and coastlines across the UK as part of the national waterbird monitoring scheme.

The surveyor(s) completed a walkover survey of the study area, stopping at numerous vantage points to complete counts by slowly scanning the survey area, and using an Opticron (ES 80 GA ED v3) telescope and Opticron MG 10x42 / Leica 10X42 binoculars to identify species. The bird species present, their abundance, and activity were recorded during each survey visit.

3.2 Survey Personnel

The surveys were planned by Dr Paul Lynas and conducted by Paul Lynas, Alison Donnelly (accompanied by Susanne Dunne), Shona Jessiman and Tony Marshall. All surveyors are skilled and experienced AECOM ornithologists who have worked at industrial and large-scale sites such as this one.

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3.3 Limitations

Wintering bird surveys are carried out during months where days are short and light levels are generally low, potentially limiting the survey window. Due to time of commissioning, no survey was completed in October. Given the similarly low numbers of wintering waterbirds recorded on the site, this is not considered to be a limitation. No other constraints that would limit the findings of this report were identified.

4. Results

4.1 Survey Conditions

Ten survey visits were carried out in total, five sets of two survey visits. Each set of visits was completed on either the same or subsequent days to capture data from both a high tide and low tide window. All visits were carried out during suitable light levels and weather conditions for bird survey. Further details of these visits, including dates, weather and survey personnel are presented in Table 4.1.

Table 4.1: Field Survey Details.

Date	Survey start and end times		Start and end temperature (°C)		Start and end wind and direction		Cloud cover start and end		Precipitation	Visibility	Personnel
15/11/2022	13:30	17:00	9	8	Light air, east	Light breeze, east	Partly cloudy	Partly cloudy	Dry	Good	Alison Donnelly (AD), Susanne Dunne (SD)
16/11/2022	08:30	12:30	5	7	Light air, east	Light air, east	Fine	Fine	Dry	Good	AD, SD
14/12/2022	12:35	15:25	4	4	Light breeze, south west	Light breeze, south west	Fine	Fine	Dry	Excellent	AD
15/12/2022	08:55	11:40	0	0	Still	Still	Fine	Fine	Dry	Excellent	AD
24/01/2023	12:10	15:10	8	9	Light air, south	Light breeze, south	Overcast	Overcast	Dry	Excellent	Shona Jessiman (SJ)
25/01/2023	12:45	15:15	9	9	Light breeze, north west	Gentle breeze, north west	Overcast	Overcast	Drizzle	Good	SJ
15/02/2023	13:30	15:00	10	10	Moderate breeze, north east	Moderate breeze, north east	Overcast	Overcast	Drizzle	Good- Excellent	Paul Lynas (PL)
15/02/2023	17:10	18:20	13	9	Moderate breeze, south west	Moderate breeze, south west	Overcast	Overcast	Drizzle	Good- Poor	PL
06/03/2023	10:35	11:50	12	11	Gentle breeze, north west	Gentle breeze, north west	Overcast	Overcast	Showers	Good	Tony Marshall (TM)
07/03/2023	06:50	08:05	11	10	Light air, north east	Light air, north east	Overcast	Overcast	Dry	Good	ТМ

4.2 Species Recorded

Across all surveys, a total of 22 species of birds were recorded within the study area and are listed in Table 4.2. The number of each species on each survey is listed with their BTO code and their conservation status in Ireland (Gilbert *et al.*, 2021). Additional details such as whether the species is a selection feature of the closest European

protected site, River Shannon and River Fergus Estuaries SPA or appears on the IUCN Red list with Near Threatened Status (NT) (IUCN, 2019) and Annex I of the Birds Directive (Ann I) are also included.

Numbers Observed **Error! Reference source not found.** shows the total number of birds recorded on each survey. The 15 December 2022 survey recorded the largest number of individuals (n=1077), by virtue of two large flocks of black-headed gull (n=146, 372) roosting on the jetty and in the lagoon, and two flocks of dunlin (n=138, 250) landing and feeding in the lagoon. Aside from this survey, bird numbers recorded were significantly lower (n=<200) and decreased consecutively from the first survey to the seventh survey, with the final surveys in March also recording low numbers of birds.





Birds were mainly noted within the lagoon to the southwest of the Site, the larger mudflats to the southeast of the Site, and on the jetty. Small numbers of birds were recorded flying over the site, while other birds were mainly recorded feeding, roosting, and loafing, see Figures 9E.1 - 9E.10 for maps showing locations of bird recorded during each survey.

4.3 Roosts

Roosting birds were noted across the November 2022, and December 2022 surveys. Black-headed gull, cormorant, common gull, great black-backed gull and herring gull were all noted roosting on the jetty to the north west of the Site. Roosting birds were also noted on the mudflats to the southeast of the Site with roosting species here consisting of black-headed gull, curlew, lesser black-backed gull, little egret, mallard, redshank and teal. Birds were also noted directly south of the Site roosting on mudflats with species such as black-headed gull, common gull, greenshank, herring gull, redshank, snipe and teal noted.

The jetty provided a location for mainly gulls and cormorants to roost, loaf and preen throughout all surveys.

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Table 4.2: Species Recorded during Survey.

Species			Count by Month (Presence / Absence)									Relevant Notes			
BTO code	Common Name	Scientific Name	15/11/22	16/11/22	14/12/22	15/12/22	24/01/23	25/01/23	15/02/23	15/02/23	06/03/23	07/03/23	SCI SP A	Other Designation s	Irish Red List Statu s
BH	Black- headed Gull	Chroicocephalus ridibundus	78	21	50	573	38	12	0	24	0	0	\checkmark		Amber
ΒZ	Buzzard	Buteo buteo	0	0	0	1	0	0	0	0	0	0			Green
CA	Cormorant	Phalacrocorax carbo	55	3	1	6	1	1	2	4	0	1	√		Amber
СМ	Common Gull	Larus canus	0	0	1	39	1	1	0	20	3	0			Amber
CU	Curlew	Numenius arquata	2	3	3	1	4	1	2	2	3	1	√	Ann 1 NT	Red
DN	Dunlin	Calidris alpina	0	82	17	388	0	0	0	0	0	0	\checkmark		Amber
ET	Little Egret	Egretta garzetta	2	2	1	3	4	3	2	1	1	0		Ann 1	Green
GB	Great Black- backed Gull	Larus marinus	0	0	3	2	0	3	5	19	0	0			Green
GG	Great Crested Grebe	Podiceps cristatus	0	0	0	0	0	0	1	0	0	0			Amber
GK	Greenshank	Tringa nebularia	3	5	0	8	0	0	3	2	0	0	\checkmark		Green
Н.	Grey Heron	Ardea cinerea	1	1	0	0	3	3	0	0	1	0			Green
HG	Herring Gull	Larus argentatus	3	2	3	5	8	6	0	5	0	0			Amber
KF	Kingfisher	Alcedo atthis	1	1	0	0	0	0	0	0	0	0		Ann1	Amber
LB	Lesser Black-backed Gull	Larus fuscus	2	2	0	0	0	0	0	0	0	0			Amber

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MA	Mallard	Anas platyrhynchos	5	0	0	2	0	0	0	4	0	5		Amber
OC	Oystercatche r	Haematopus ostralegus	4	8	3	2	12	5	0	1	0	0	NT	Amber
PE	Peregrine	Falco peregrinus	0	0	0	0	0	0	0	0	1	0	Ann1	Green
RK	Redshank	Tringa totanus	16	22	15	24	19	16	3	1	0	4	\checkmark	Red
SN	Snipe	Gallinago gallinago	5	4	1	2	0	0	23	0	0	0		Red
SU	Shelduck	Tadorna tadorna	0	0	0	0	0	0	0	0	7	0	\checkmark	Amber
Т.	Teal	Anas crecca	0	0	0	21	0	0	0	0	0	19	\checkmark	Amber
WN	Wigeon	Mareca penelope	0	0	0	0	0	2	28	26	0	0	\checkmark	Amber
	Total count:			156	98	1077	90	53	69	109	16	31		
Total species present per survey:		14	14	12	16	10	12	10	13	7	7			

5. Discussion of Potential Impacts

5.1 Species Importance

A number of species recorded in the survey are of conservation concern in Ireland. These include the red-listed curlew, redshank and snipe (Gilbert *et al.*, 2021). Thirteen more species recorded are classed as amber-listed (black-headed gull, cormorant, common gull, dunlin, great crested grebe, herring gull, kingfisher, lesser black-backed gull, mallard, oystercatcher, shelduck, teal and wigeon) (Gilbert *et al.*, 2021).

Four species appear on Annex I of the Birds Directive meaning their populations are considered as being under threat or vulnerable (curlew, little egret, kingfisher and peregrine).

Two species (curlew and oystercatcher) are listed on the IUCN red list as Near Threatened meaning that their populations are under threat.

Nine species recorded are qualifying interests of the adjacent River Shannon and River Fergus Estuaries SPA (black-headed gull, cormorant, curlew, dunlin, greenshank, redshank, shelduck, teal and wigeon).

Overall, low numbers of birds were recorded on site, with the exception of the 15 December 2022 survey. This survey is an outlier due to a large number of flocking black-headed gull and dunlin recorded during the survey. In total 1820 individual birds were recorded during the surveys with over half of those birds recorded on the single occasion on 15 December 2022.

5.2 Species Distribution

With the exception of peregrine, all birds were associated with the wetland habitats present on Site. Habitats within the study area comprise mudflats, a tidal lagoon, grassland, scrub and treelines. Mudflats and the tidal lagoon provide foraging habitat for wintering birds with many of the birds noted roosting also utilising these areas. The jetty provided a location for gulls and cormorants to roost, preen and loaf. This provided an excellent location as it overlooked the estuary and allowed access straight out to the open water. Many birds were observed returning to the jetty between feeding bouts.

The lagoon provides a sheltered location adjacent to the site just off the Shannon Estuary which was used by a number of waterbirds to feed, roost or loaf. However, although the survey focussed mainly on the habitats immediately surrounding Tarbert Island, large numbers of waterbirds were incidentally also noted by the surveyors using Tarbert Bay, stretching from SSE Tarbert Island, into Tarbert Village. A large area of mudflats is uncovered during every tidal cycle and was observed to be used by hundreds of waterbirds including large and small waders, ducks, geese and gulls, feeding on the falling tide.

The comparatively low number of birds within the survey area, with the exception of the 15 December survey, can most likely be attributed to the presence of higher quality suitable habitat for wintering birds in the surrounding areas. The River Shannon and River Fergus Estuaries SPA is adjacent the site and provides great foraging and sheltering opportunities for wintering birds throughout in addition to the habitats present on site.

Black-headed gull, cormorant, curlew, dunlin and greenshank, all qualifying interest for the River Shannon and River Fergus Estuaries SPA, were however present in numbers above the 1% threshold for the SPA population. Curlew, Dunlin and Greenshank were present in present in numbers below the 1% international and national thresholds for these species (Burke *et al.* 2021).

Most of the bird activity was recorded as outlined in the lagoon, on the jetty or on the south side of Tarbert Island adjacent to the ferry terminal and SSE Tarbert entrance. Each of these habitats is located generally over 300m from the main construction zone and is subject to other existing disturbance from existing works at SSE Tarbert site, the ferry terminal and shipping traffic. Birds are apparently habituated to the current levels of disturbance.

5.3 Construction Phase Impacts

The construction phase of the Proposed Development may disturb wintering birds adjacent to the site through increased noise, vibration, visual disturbance and through potential pollution events which may be conveyed to the River Shannon and River Fergus SPA located adjacent to the Site.

Although the wintering birds comprise of a number of Red-listed and Amber-listed species, they were generally only present in the study area in low numbers and were common species in this area at this time of year.

The Waterbird Disturbance Mitigation Toolkit provides guidance with regards to waterbirds and noise and visual disturbance (Cutts *et al.*, 2013). This guidance states that there is unlikely to be any reasonable response by waterbirds to any noises below 55dB. Noise levels maps of predicted combined construction noise levels in typical and peak months have been produced following noise modelling (EIAR Volume III Figure 11.3a and 11.3b). Greatest noise levels (90 – 96 dB) are limited to the construction area, and outside of this area noise levels drop to less than 72dB in all areas used by birds. Some small areas used by wintering birds, for example, parts of the inlet to the south of the Site, may experience up to 70dB of sound, while the majority of this inlet will experience up to 66 - 68dB. Most of the bird records are within areas which will receive less than 64dB noise. Therefore, regular noise at these levels may be considered to produce moderate disturbance. However, birds in these areas are likely to be habituated to background noise and elevated human presence from maintenance of the existing Tarbert HFO Power Station, construction that is currently taking place within the TEG site and the adjacent busy ferry terminal.

The main construction area is located in the north-west of the Site, away from the main concentrations of wintering birds. If some of the birds were to be displaced temporarily during the construction phase of the Proposed Development, only small numbers of individuals would likely be impacted, and birds would almost certainly remain within the SPA and simply temporarily relocate to an alternative area. This would be inconsequential at a population level. Furthermore, birds would only be disturbed during periods of construction activities, i.e., daylight hours.

Visual disturbance to waterbirds, such as that caused by a construction worker, can cause flight responses in waterbirds from c. 100 – 150m (Cutts *et al.*, 2013). Much of the wintering bird activity was recorded immediately adjacent to the Site in estuarine or intertidal habitats, however, a significant proportion of the bird records are from the largest area of suitable habitat in the area – the mudflats area to the south-east. The majority of birds in this area were recorded more than 400m away from the Site boundary, and approximately 700m from the area of construction. This habitat is screened from the Proposed Development by existing topography, vegetation and buildings including the large existing power station. Vehicles accessing the Site will do so along an existing public road, to which birds can be expected to be habituated. It is therefore considered unlikely that any visual disturbance of birds using this mudflat would occur.

5.4 **Operation Phase Impacts**

The operation phase of the Proposed Development is unlikely to cause disturbance to wintering birds as there will be little human presence given that the Site will be largely operated remotely and noise during operation is anticipated to be less than 55dB in all areas frequented by birds, the level at which no disturbance is likely to occur.

As with construction phase impacts, there is not expected to be any visual disturbance to waterbirds from power station workers during the operational phase.

6. Mitigation

6.1 General Principles of Mitigation

All works are required to comply with legislation to minimise impacts on protected species when developing on sites where they are present.

The Proposed Development should seek to follow the mitigation hierarchy where there is potential for impacts on identified ecological receptors:

- 1. Avoid features where possible.
- 2. Minimise impact by design, method of working or other measures (mitigation) (e.g., by enhancing existing features); and,
- 3. Compensate for significant residual impacts (e.g., by providing suitable habitats elsewhere on the clientowned parts of the wider site).

This hierarchy requires the highest level to be applied where possible. Only where this cannot reasonably be adopted should lower levels be considered. The rationale for the proposed mitigation and/or compensation should be provided, including sufficient detail to show that these measures are feasible and would be provided.

The following standard mitigation measures should be applied as a minimum:

- An Ecological Clerk of Works (ECoW) should be appointed to oversee and advise contractors and site operators on mitigation implementation.
- The EcoW shall follow measures to protect the natural environment as set out in a Construction Environment Management Plan (CEMP) for the Proposed Development.
- Avoidance of impacts on breeding and non-breeding birds should be implemented through design (e.g., timing of vegetation clearance outside the breeding season).
- All personnel and staff involved in the construction, operation and decommissioning of the Proposed Development will be made aware of the presence of ecological features (including the QI / SCI features of European sites) in the vicinity of the Proposed Development and the mitigation measures and working procedures which must be adopted. This will be achieved as part of the induction process through the delivery of a Toolbox Talk. In addition, as required, briefings will also be provided in advance of works which are considered to present an increased risk of impacting ecological features.
- Coastal and intertidal habitats adjacent to the Proposed Development should be safeguarded. Pollution prevention measures should be implemented for all construction works. Measures for pollution prevention are to be provided in the CEMP for the Proposed Development.
- Impact to the natural landscape from the Proposed Development should be kept to a minimum (particularly regarding wetland, estuarine, and intertidal habitats).
- Construction works should be avoided within 50m of River Shannon and River Fergus SPA and other areas of wetland, intertidal and estuarine habitat during the winter season (i.e., October to March).
- Construction compounds will be fenced to prevent encroachment of personnel, machinery and materials onto adjacent habitats. The temporary stockpiling of materials will be restricted to designated locations on Site, at least 30m away from any waterbody and distanced from the Site boundaries.
- Include restoration or compensatory habitat creation, as part of the landscaping strategy. Mitigation through habitat creation should also include a management plan to ensure successful creation and the maintenance of the habitat created throughout the lifetime of the development.
- Lighting designs during construction and operation will minimise light spill to habitat features and concentrate artificial light only where required. Lighting should not illuminate any habitat features (i.e., habitats within River Shannon and River Fergus SPA) in the Site.

7. Summary

Surveys identified 22 species of bird within the survey area. The 15 December 2022 survey recorded the largest number of individuals with 1077 records with all other surveys recording less than 200 individuals around Tarbert Island, generally decreasing through the winter. Overall low numbers of birds were recorded within the survey area and bird species were recorded irregularly both in terms of numbers and types of species using the site.

Bird species included red-listed curlew, redshank and snipe. Thirteen more species recorded are classed as amberlisted (black-headed gull, cormorant, common gull, dunlin, great crested grebe, herring gull, kingfisher, lesser blackbacked gull, mallard, oystercatcher, shelduck, teal and wigeon).

Nine species recorded are qualifying interests of the adjacent River Shannon and River Fergus Estuaries SPA (black-headed gull, cormorant, curlew, dunlin, greenshank, redshank, shelduck, teal and wigeon).

With the exception of peregrine, all birds were associated with the wetland habitats present on Site. Habitats within the study area comprise mudflats, a tidal lagoon, grassland, scrub and treelines. The mudflats and the tidal lagoon were used most frequently and provide foraging habitat for wintering birds with many of the birds noted roosting also in these areas. The jetty also provided a place for birds to roost, preen and loaf between feeding bouts, especially cormorants and gulls.

Standard mitigation measures including the appointment of an ECoW and the preparation / implementation of a CEMP will be suffice to protect the site and the bird species as a precaution.

No impacts are expected to birds from the Proposed Development.

8. References

Bibby C., Burgess, N., Hill, D., and Mustoe, S. (2000). Bird Census Techniques. 2nd edition. Academic Press.

Fitzgerald, N., Burke, B. & Lewis, L.J. (2021 Irish Wetland Bird Survey: Results of waterbird monitoring in Ireland in 2016/17 and 2017/18. BirdWatch Ireland, Wicklow.

CIEEM (2019). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*, version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

Cutts, N., A. Phelps, and D. Burdon. (2009). "Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance, Report to Humber INCA." ZBB710-F-2009. Institute of Estuarine and Coastal Studies University of Hull.

Cutts, N., Hemingway, K and Spencer, J. (2013). Waterbird Disturbance Mitigation Toolkit: Informing Estuarine Planning & Construction Projects. Produced by the Institute of Estuarine & Coastal Studies (IECS) University of Hull. Available from: <u>https://www.tide-toolbox.eu/tidetools/waterbird_disturbance_mitigation_toolkit/</u>.

EC Directive 2009/147/EC on the Conservation of Wild Birds (The Birds Directive).

Gilbert, G., Stanbury, A. & Lewis, L. (2021) Birds of Conservation Concern in Ireland 2020–2026. *Irish Birds*, 43: 1-122.

IUCN (2019). The IUCN Red List of Threatened Species. Version 2019-1. <u>http://www.iucnredlist.org</u>. Downloaded on 21 March 2019.



OC. Oystercatcher (Haematopus

MU. Mediterranean Gull (Ichthyaetus

BA. Bar-tailed Godwit (Limosa

CM. Common Gull (Larus canus)

ND. Great Northern Diver (Gavia immer)



AECOM

PROJECT

SSE Tarbert Next **Generation Power Station**

CLIENT

SSE Generation Ireland Limited

CONSULTANT

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LEGEND

Proposed Development Site

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 1 (15/11/2022)

FIGURE NUMBER

9E.1

1:9,000 @ A3

300

200

100

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- LB. Lesser Black-backed Gull (Larus fuscus)
- ND. Great Northern Diver (Gavia immer)
 OC. Oystercatcher (Haematopus ostralegus)
- MA. Mallard (Anas platyrhynchos)
- RK. Redshank (Tringa totanus)
- T. Teal (Anas crecca)
- WN. Wigeon (Mareca penelope)

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AECOM Limited 9th Floor, The Clarence West Building Belfast, BT2 7GP Tel (028) 9060 7200 www.aecom.com

LEGEND

_	Proposed Development Site
Bird Ac	tivity Line
	BH. Black-headed Gull (Chroicocephalus ridibundus)
	H. Grey Heron (Ardea cinerea)
	HG. Herring Gull (Larus argentat
	SN. Snipe (Gallinago gallinago)

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 2 (16/11/2022)

FIGURE NUMBER

9E.2

1:7,500 @ A3

300

200





AECOM PROJECT

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LEGEND

	Proposed Development Site
Bird Ac	tivity Line
	BH. Black-headed Gull (Chroicocephalus ridibundus)
	ET. Little Egret (Egretta garzetta)
	HG. Herring Gull (Larus argentate
	SN. Snipe (Gallinago gallinago)

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 3 (14/12/2022)

FIGURE NUMBER

9E.3

1:9,000 @ A3

450





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LEGEND

_	Proposed Development Site						
Bird Ac	Bird Activity Line						
	BH. Black-headed Gull (Chroicocephalus ridibundus)						
	BZ. Buzzard (Buteo buteo)						
	CA. Cormorant (Phalacrocorax carbo)						
	CM. Common Gull (Larus canus)						
	DN. Dunlin (Calidris alpina)						

HG. Herring Gull (Larus argentatus)

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 4 (15/12/2022)

FIGURE NUMBER

9E.4

1:7,500 @ A3

300

200



OC. Oystercatcher (Haematopus

Ν

- HG. Herring Gull (Larus
- RK. Redshank (Tringa totanus)
- SU. Shelduck (Tadorna tadorna)
- WN. Wigeon (Mareca penelope)
- MS. Mute Swan (Cygnus olor)



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LEGEND

_	Proposed Development Site
Bird Ac	tivity Line
	CA. Cormorant (Phalacrocorax carbo)
	CU. Curlew (Numenius arguata)

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 5 (24/01/2023)

FIGURE NUMBER

9E.5

	1:7,50	0 @ A
100	200	30





PROJECT

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LEGEND

 Proposed Development Site Bird Activity Line GB. Great Black-backed Gull (Larus marinus)

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 6 (25/01/2023)

FIGURE NUMBER

9E.6

1:8,500 @ A3

300

200





PROJECT

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LEGEND

Proposed Development Site

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 7 (15/02/2023)

FIGURE NUMBER

9E.7

1:4,000 @ A3

300





PROJECT

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LEGEND

Proposed Development Site

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 8 (15/02/2023)

FIGURE NUMBER

9E.8

1:5,000 @ A3

300

200





PROJECT

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LEGEND

Proposed Development Site

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 9 (06/03/2023)

FIGURE NUMBER

9E.9

1:5,000 @ A3

300

RECORDED BIRD SPECIES CA. Cormorant (Phalacrocorax carbo) • • CU. Curlew (Numenius arquata) PE. Peregrine (Falco peregrinus) 0 RK. Redshank (Tringa totanus) 0 0 T. Teal (Anas crecca) MA. Mallard (Anas platyrhynchos) 0 o 50 25 0



ΑΞϹΟΜ

PROJECT

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LEGEND

Proposed Development Site

NOTES Maxar, Microsoft

ISSUE PURPOSE

FINAL

PROJECT NUMBER 60707258

FIGURE TITLE

Wintering birds - Survey 10 (07/03/2023)

FIGURE NUMBER

9E.10

1:3,500 @ A3

150

100

