Winter Bird Survey Report

Social Housing Bundle 4, Development at Wellmount Road, Finglas

26 June 2024



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1 Introduction

1.1 Assessment brief

Dublin City Council has prepared a Part 8 planning application for a residential development at Wellmount Road, Finglas, Dublin 11. As part of a preliminary ecological review of sites in 2023, the potential of the site for wintering birds was identified. The proposed development site (hereafter referred to as 'the Site') consists primarily of amenity grassland, a habitat that may be used by brent geese and other over-wintering birds associated with Special Protection Areas (SPAs) in Dublin Bay. Therefore, DCC engaged NM Ecology Ltd to carry out a series of wintering bird surveys to establish accurate information on the use of the site by these species. In this document we present the methods, results and conclusions of these surveys.

1.2 Statement of authority

All surveying and reporting was carried out by Nick Marchant, the principal ecologist of NM Ecology Ltd. He has sixteen years of professional experience, including thirteen years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO in Indonesia. He provides ecological assessments for developments throughout Ireland and Northern Ireland, including wind farms, infrastructural projects (roads, water pipelines, greenways, etc.), and a range of residential and commercial developments.

He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast. He is a member of the Chartered Institute of Ecology and Environmental Management, and operates in accordance with their code of professional conduct.

1.3 Background on winter birds and inland sites

There are two large SPAs in Dublin Bay – the *North Bull Island* SPA and the *South Dublin Bay* and *River Tolka Estuary* SPA – both of which were designated to protect a range of overwintering migratory birds. Their Special Conservation Interests (the species for which the SPAs were designated) are listed in Table 1. The primary habitats for these birds are the coastal and intertidal habitats within the SPA boundaries (mudflats, sandflats, saltmarsh), which are exposed at low tide. However, some species also fly inland to feed in amenity grasslands throughout Dublin City (hereafter referred to as 'inland sites'), particularly playing fields, parks and other areas of regularly-mown grassland. This behaviour is most-commonly seen in brent geese, but also occurs in oystercatchers, godwit and curlew.

Table 1: Special Conservation Interests of the SPAs in Dublin Bay

Site Name	Distance	Reasons for designation
South Dublin Bay and River Tolka Estuary SPA (site code 4024)	6 km south- east	Key habitats: coastal wetlands Special conservation interests: light-bellied brent goose, oystercatcher, ringed plover, grey plover, knot, sanderling, dunlin, bar-tailed godwit, redshank, blackheaded gull (wintering populations), arctic tern, roseate tern (passage), and common tern (breeding and passage)
North Bull Island SPA (2006)	9 km east	Key habitats: coastal wetlands Special conservation interests: light-bellied brent goose, shelduck, teal, pintail, shoveler, oystercatcher, golden plover, knot, sanderling, dunlin, black-tailed godwit, bartailed godwit, curlew, redshank, turnstone, black-headed gull (all are wintering populations)

The use of inland feeding sites by brent geese in Dublin city appears to be a relatively modern phenomenon, and to be increasing in prevalence. A study by Lorraine Benson¹ in 2009 identified 60 inland feeding sites in Dublin, which represented a six-fold increase when compared with ten years previously.

A separate study by Scott Cawley Environmental Consultants² in 2017 identified 161 potential inland sites throughout Dublin, a substantial increase on the number of sites identified by Benson (2009). This number is almost certainly an underestimate, as the study did not cover all suitable sites and was based only on brief snapshot surveys. Notably, the Site (i.e. the subject of this assessment) was not identified in the Scott Cawley study.

Brent geese favour large open areas of regularly-mowed amenity grassland: Benson (2009) reported that "the primary sites used by significant numbers of brent geese were at least the size of a football pitch" (approx. 0.7 ha). They typically avoid areas with high levels of human disturbance, particularly areas used regularly by dog walkers, as dogs are seen as potential predators.

conservation concern? Irish Birds 8: 563-570

Scott Cawley Environmental Consultants. 2

¹ Benson, L. (2009) Use of inland feeding sites by Light-bellied Brent Geese in Dublin 2008-2009: a new conservation concern? Irish Birds 8: 563-570

² Scott Cawley Environmental Consultants, 2017. Natura Impact Statement: Information for Stage 2 Appropriate Assessment for a proposed residential development at St. Paul's College, Sybil Hill, Raheny, Dublin 5. Submitted to Dublin City Council as part of planning application 4185/15

1.4 Suitability of the Site

The Site consists almost entirely of amenity grassland and has a surface area of approx. 1.0 ha, which is larger than the 'size of a football pitch' reported by Benson (2009). Therefore, it was considered prudent to carry out a series of winter bird surveys, to determine whether or not the Special Conservation Interests of any nearby SPAs (SCI species) were present, and if so, to assess the numbers and frequency of their use of the Site.

The Site was not previously surveyed as part of large-scale studies by Benson (2009) or Scott Cawley (2017). The Scott Cawley study included some sites in the surrounding area, which are shown in Figure 1 and outlined in Table 2.

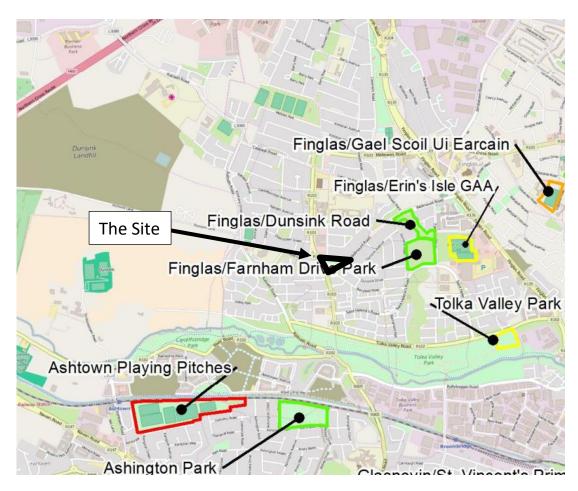


Figure 1: Figure reproduced from the Scott Cawley (2017) report. The Site is outlined in black. Sites outlined in green had no records of brent geese, sites in yellow were of low importance (1 – 50 brent geese), sites in orange were of high importance (50 – 400 brent geese) and sites in red were of major importance (>400 brent geese)

Table 2: Grasslands surveyed by Scott Cawley (2017) in the surrounding area

Site Name	Distance	Brent geese recorded
Dunsink Road	490 m east	None
Farnham Drive Park	410 m north-east	None
Erin's Isle GAA	630 m east	Moderate importance (1 – 50 brent)
Tolka Valley Park	980 m south-east	Moderate importance (1 – 50 brent)
Ashington Park	980 m south	None
Ashtown Playing Pitches	1.3 km south-west	Major importance (> 400 brent)
Gael Scoil Uí Earcain	1.3 km north-east	High importance (50 – 400 brent)

2 Methods

2.1 Best-practice guidance

There is no specific guidance on winter bird surveys at inland sites. Birdwatch Ireland has published methods for the Irish Wetland Bird Survey (IWeBS³), which involves monthly surveys of winter birds between September and March within three hours either side of high tide. However, the IWeBS survey focusses almost entirely on coastal sites (typically within SPAs), and does not cover inland feeding sites.

Some general guidance on surveys of geese and swans at inland sites was published by the National Roads Authority (now Transport Infrastructure Ireland) in a document titled *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes*⁴. It should be noted that this guidance relates to national road projects, which are substantially larger in scale than the proposed development. However, the following guidance is considered relevant for this project:

"In instances where swan and goose surveys are required in either terrestrial or non-tidal wetland habitats, counts should be undertaken using a 'look-see' methodology. This relies on the field surveyors walking around the periphery of such habitats using binoculars (and a telescope where necessary) to locate, identify and count flocks of water birds. Depending upon the nature of the site in question, it may be possible to undertake such counts from a concealed vantage point.

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³ Counter Manual: Guidance for Irish Wetland Bird Surveys counters https://birdwatchireland.ie/app/uploads/2019/03/IWeBS-Counter-Manual.pdf

⁴ Available online at https://www.tii.ie/technical-services/environment/planning/Ecological-Surveying-Techniques-for-Protected-Flora-and-Fauna-during-the-Planning-of-National-Road-Schemes.pdf

If it is anticipated that the presence of swans and/or geese within terrestrial or non-tidal wetland habitats coincides with high tide events at a nearby estuary, or the onset of nightfall, the timing of the surveys should be modified accordingly to target the appropriate times of day. Further details of 'look-see' methodologies can be obtained from Bibby et al. (2000)."

Large-scale studies of inland feeding sites for brent geese in Dublin have been carried out by Lorraine Benson and Scott Cawley Ltd. Both involved regular surveys of amenity grasslands throughout Dublin City using the 'look-see' approach, involving either repeated surveys of key locations, or rapid / one-off surveys of a range of sites.

2.2 Methods used in this assessment

For this assessment NM Ecology Ltd carried out surveys approximately every two weeks from late September to early April, comprising a total of 14 surveys. Bibby's 'Look-See' approach was followed, which involved an initial search of the study area with binoculars, followed by a survey from a fixed vantage point. All surveys were undertaken within three hours of high tide, as this is the time when coastal birds are most likely to use inland sites.

The primary focus of the bird surveys was the Special Conservation Interests (SCIs) of the *North Bull Island* SPA and the *South Dublin Bay* and *River Tolka Estuary* SPA, which are listed in Table 1. If any of these species were observed, a count of individuals was recorded, along with information on their behaviour, time spent on site, etc. Other bird species were also recorded, but not counted or assessed in detail.

One of the key parameters determining the use of a site by winter birds is anthropogenic disturbance. To assess levels of background disturbance at the Site, we recorded the number of pedestrians, dog walkers and other sources of disturbance that passes through the red-line boundary of the Site during the course of the survey.

2.3 Assessment of impacts

The primary resource used by members of the Chartered Institute of Ecology and Environmental Management (CIEEM) is *Guidelines for Ecological Impact Assessment in the UK and Ireland* (2018)⁵. One of the key steps in an Ecological Impact Assessment (EcIA) is to determine the *importance* of an ecological feature:

"one of the key challenges in an EcIA is to decide which ecological features (habitats, species, ecosystems and their functions/processes) are important and should be subject to detailed assessment. Such ecological features will be those that are considered to be important and potentially affected by the project. It is not necessary to carry out detailed

⁵ Available online at https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/

assessment of features that are sufficiently widespread, unthreatened and resilient to impacts from the development, and that will remain viable and sustainable."

The results of winter bird surveys will be used to determine whether the Site is of importance for the SCIs of nearby SPAs. This will be used in the *Screening for Appropriate Assessment* report and *Preliminary Ecological Appraisal* carried out for the proposed development.

2.3.1 Assessing importance: number of birds

Lorraine Benson used the following approach to assess the importance of inland feeding sites for brent geese:

"The criterion used to grade sites by importance was the internationally accepted 1% of total flyway population which was developed under the Ramsar Convention. While the 1% criterion refers to wetlands which support 1% of a species or subspecies, the 1% threshold is applicable throughout the range of that population and at any time of year.

The sites used by the brent geese were graded in terms of their importance according to the peak numbers of brent geese using any one site. The threshold used here of 400 birds represents over 1% of the current total population of 37,650 for 2009 and is greater than the mean population for the years 2005-2009. These sites can, therefore, be considered of international importance."

Using the above rationale, Lorraine Benson ranked sites used four categories based on the numbers of brent geese recorded:

No importance: no geese recorded

Moderate importance: 0 – 50 geese

• High importance: 51 – 400 geese

• Major importance: > 400 brent geese

The same categories were used by Scott Cawley Ltd in their 2017 study.

For ease of comparison we will also use these abundance categories to assess the importance of sites for brent geese. The total population of brent geese is now closer to 40,000 individuals⁶, which is an increase from the population of 37,650 at the time that Lorraine Benson's study was carried out. However, 1% of 40,000 is 400, so the threshold for sites of international / major importance remains appropriate.

2.3.2 Assessing importance: frequency of use

As noted in Section 1.3, there are over 160 inland sites in Dublin suitable for brent geese. Some of the sites are used frequently (e.g. daily), others occasionally (e.g. once per week)

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⁶ https://www.irishbrentgoose.com/about-brent-geese/

and others on a very infrequent basis (e.g. once per year). One of the main factors determining frequency of use is anthropogenic disturbance: a flock of geese may have one or two preferred feeding sites, but if dogs and / or people are present at these locations the geese may move to less-preferred sites. Over the course of a day geese may have to use multiple sites to avoid disturbance. The use of sites may also vary within a season: Benson (2009) found that brent geese used sites throughout Dublin in the mid-winter period, but by March / April they rarely fed at inland sites more than 3 km from the coast.

Therefore, the frequency of use of an inland site is a key factor determining its 'importance' in the context of an ecological assessment. To assess frequency of use, we visited the site on 14 occasions throughout the active season; this is considered to be a high level of survey effort. Based on professional judgement, we consider a regularly-used site to support an SCI species for at least 50% of surveys, an occasionally-used site for 25 - 50% of surveys, and a rarely used site for less than 25% of surveys.

We acknowledge that any study based on representative sampling of highly-mobile fauna is challenging. Our surveys were carried out at two-weekly intervals, which covers approximately one-fourteenth of all days in which geese could have been present. Any study of this type carries a risk of under-representation (e.g. if geese are present on days that surveys are not carried out) or over-representation (if an unusually large flock was present during one of the surveys, but not at any other time). The best approach to account for this limitation is to ensure a high survey effort, which we consider to be the case in this assessment.

3 Results

In this section we present the results of 14 winter bird surveys carried out at the Site between September 2023 and April 2024. The results are presented in full in Table 4, and commentary relating to SCI species is provided in Sections 3 and 4. For ease of reference, species are referred to using two-letter codes proposed by the British Trust for Ornithology; relevant species codes are presented at the end of Table 4.

Table 4: Results of winter bird surveys

Date	Weather	SCI species	Other species *
29-Sep	16°C, dry, light wind	1 BH	RO, MG, HG, HC
11-Oct	10°C, drizzle, no wind	9 BH	JD, MP, HC, PW
21-Oct	11°C, dry, no wind	5 BH	MP
08-Nov	8°C, dry, no wind	26 BH	SG, RO, MP
23-Nov	10°C, mod winds, dry	24 BG, 90 BH	CG, HG, JD, MP

Date	Weather	SCI species	Other species *
04-Dec	4°C, dry, light wind	13 BH	HC, JD, SG, HG
19-Dec	8°C, dry, light wind	28 BH	SG, HG, JD
02-Jan	8°C, drizzle, no wind	9 BH	HG, JD
16-Jan	2°C, dry, light wind	5 BG, 51 BH	CG, RO, HG, JD, SG
29-Jan	5°C, drizzle, no wind	83 BG, 14 BH	CG, HG, SG
12-Feb	8°C, dry, mod wind	38 BH	HG, JD, SG
29-Feb	7°C, dry, light wind	3 BG, 24 BH	RO, HG, JD, SG
19-Mar	10°C, dry, light wind	-	SG, MP, WP
03-Apr	7°C, light drizzle, light wind	-	WP, CG, SG, HG

^{*} BTO species codes: BH – black-headed gull, HG – herring gull, CG - common gull, MP - magpie, RO - rook, JD - jackdaw, SG – starling, PW – pied wagtail, WP - woodpigeon

3.1 SCI species recorded

Two SCI species were recorded: brent geese and black-headed gull. Over-wintering populations of these species are qualifying interests of both the *South Dublin Bay and River Tolka Estuary* SPA and the *North Bull Island* SPA.

Brent geese

Geese were recorded on four occasions: 24 geese on 23 November, 5 geese on 16 January, 83 geese on 29 January and 3 geese on 29 February. The flock of 83 geese fed on the Site for 1.5 hours, but on the other three occasions the geese were only present for a maximum of 30 minutes before being disturbed by pedestrians / dogs and leaving the Site. Based on the abundance categories in Section 2.3.1, there was a flock of high importance (50 - 400 geese) during 1 survey, flocks of moderate importance (1 - 50 geese) during 3 surveys, and no geese during 10 surveys. Based on the frequency of use categories in Section 2.3.2, geese were present during 28.5 % of surveys, which we consider to represent 'occasional use'. Therefore, we conclude that the Site is used on an occasional basis by brent geese, usually only in flocks of moderate importance.

Black-headed gull

Black-headed gull was regularly recorded at the Site, with a peak count of 38 individuals. They often occurred as part of a large, sprawling flock of mixed gulls (black-headed gull, herring gulls and common gull) that roosted across the Site, on lamp-posts surrounding the Site, and on the roofs of surrounding houses.

3.2 Other birds

No other SCI species were recorded. A range of common suburban birds were observed during the surveys, including herring gull, common gull, magpie, rook, jackdaw, starling and pied wagtail. No species of conservation importance were recorded.

3.3 Anthropogenic disturbance

The Site had a moderate level of disturbance, with an average of 5.1 pedestrians passing through the Site per hour (approx. one pass every 12 minutes), and 0.7 dog walkers per hour (approx. one pass every 85 minutes). 'Scrambler' bikes were recorded during most of the surveys, vehicular lawn mowers were present on one occasion, and a horse-drawn 'sulky' carriage was being used on the grass on two occasions. Overall, this is disturbance of a level that would be likely to disturb geese and other SPA birds.

4 Assessment of potential impacts

Brent geese

The development of the Site would substantially change the extent and character of grassland at the Site, which would reduce it below the 0.7 ha threshold suggested by Benson (2009). It would also increase activity (and thus disturbance) by pedestrians and dog walkers. In combination, these factors would almost certainly make the Site unsuitable for brent geese in the future.

The large-scale study by Scott Cawley in 2017 identified 161 inland sites used by brent geese in Dublin, including 12 that supported populations of major importance (i.e. > 400 brent geese) for 4-5 consecutive years; these represent the most-important inland sites used by brent geese in Dublin. The Site was not one of the 161 sites identified in the Scott Cawley study, so its loss will not substantially reduce the known feeding network for this species in Dublin.

Geese displaced from the Site would have alternative feeding sites in the broader surroundings. Scott Cawley identified 7 potential grassland sites within 1.5 km of the Site (Table 2, Figure 1), and recorded geese at 4 of them, including one site of Major importance (>400 brent geese recorded). These sites would be large enough to accommodate the small number of geese displaced from the Site.

Therefore, considering that brent geese were only recorded at the Site in relatively low numbers and on an occasional basis, that there is regular anthropogenic disturbance at the Site (by pedestrians, dogs, scramblers and sulkies), and that there are several sites nearby of higher foraging value, the development of the Site will have an imperceptible impact on brent geese associated with the SPAs in Dublin Bay. In the context of Appropriate

Assessment screening, the proposed development will not be likely to have a significant effect on any European sites.

Black-headed gulls

Gulls are generalist species that can readily adapt to anthropogenic environments, including urban habitats. They are widespread in the area, and are not specifically associated with grassland habitats. It is expected that they will continue to use the Site following the construction of the proposed development. Therefore, there will be no impact on this species.

5 Conclusion

We conclude that the proposed development will have an imperceptible impact on brent geese, because the Site is only used by relatively low numbers and on an occasional basis, and there are several alternative sites nearby of higher foraging value. Black-headed gull was also present, but it is a generalist species that will continue to use the Site following the proposed development, so it will not be significantly affected.

The results of this assessment will be used to inform an Ecological Impact Assessment and Appropriate Assessment screening assessment for the proposed development.