
Winter Bird Survey Report

Social Housing Bundle 5, Development
at Maples Road, Balally, Dublin 16

27 August 2024



NM Ecology Ltd - Consultant Ecologists
38 Maywood Avenue, Raheny, Dublin 5
Website: www.nmecology.com
Email: info@nmecology.com
Tel: 087-6839771

Table of Contents

- 1 Introduction 2**
 - 1.1 Assessment brief 2
 - 1.2 Statement of authority 2
 - 1.3 Background on winter birds and inland sites 2
 - 1.4 Suitability of the Site 4
- 2 Methods 4**
 - 2.1 Best-practice guidance 4
 - 2.2 Methods used in this assessment 5
 - 2.3 Assessment of impacts 5
- 3 Results 7**
 - 3.1 SPA species recorded 7
 - 3.2 Other birds..... 8
 - 3.3 Anthropogenic disturbance 9
- 4 Conclusion 9**

1 Introduction

1.1 Assessment brief

Dublin City Council has prepared a Part 8 planning application for a residential development at Maples Road, Balally, Dublin 16. As part of a preliminary ecological review of sites in 2023, the potential of the site for wintering birds was identified. The proposed development will be constructed on amenity grassland, a habitat that could potentially be of importance for brent geese and other winter birds associated with Special Protection Areas (SPAs) in Dublin Bay. In response, NM Ecology Ltd was engaged to carry out a series of winter bird surveys between September 2023 and April 2024. 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 over-wintering migratory birds (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, curlew, gulls and other species.

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, black-headed 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, bar-tailed 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.

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 proposed development site (hereafter referred to as ‘the Site’) consists almost entirely of amenity grassland that is regularly mowed. The area of grassland within the boundary of the Site measures approx. 0.2 ha, which is substantially smaller than the ‘size of a football pitch’ reported by Benson (2009). However, the larger area of grassland to the east and north-east of the Site measures approx. 0.5 ha, so the two adjoining areas cumulatively reach the minimum size. 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.

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.

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

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>

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 (EclA) is to determine the *importance* of an ecological feature:

"one of the key challenges in an EclA 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 assessment of features that are sufficiently widespread, unthreatened and resilient to impacts from the development, and that will remain viable and sustainable."

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

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) 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

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

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

3.1 SPA species recorded

No brent geese or any waders / waterfowl (e.g. oystercatchers, godwit) were recorded at the Site during any of the surveys. Similarly, no SPA birds were observed in flight, nor any birds using the grassland to the east of the Site.

The only recorded species that is a qualifying interest of the Dublin Bay SPAs is black-headed gull: 5 individuals recorded in November and 3 in December. It is important to note that black-headed gull is one of the most common species around the coast of Ireland, and that it is an opportunistic scavenger with no specific habitat requirements. Counts of 5 and 3 individuals are considered negligible. It is also noted that this species was only recorded during 2 of the 14 surveys.

Table 2: Results of winter bird surveys

Date	Weather	SCI species	Other species *	Pedestrian activity (per hour)	Pedestrian with dogs (per hour)
25/09/2023	16 °C, dry, calm	N.A.	MP, HC	9	6
09/10/2023	17 °C, dry, no wind	N.A.	MP, RO	21	1
27/10/2023	16 °C, dry, calm	N.A.	WP, MP	2	0
10/11/2023	4 °C, dry, no wind	5 BH	HG, WP	0	0
24/11/2023	8 °C, dry, light wind	N.A.	HC	3	1
02/12/2023	10 °C, light wind, light drizzle	N.A.	MP	2	0
19/12/2023	8 °C, dry, light wind	3 BH	HC, MP, JD, PW	12	0
04/01/2024	7 °C, dry, no wind	N.A.	N.A.	1	0
17/01/2024	3 °C, dry, no wind	N.A.	N.A.	6	1
02/02/2024	12 °C, dry, light wind	N.A.	MP, RO	7	1
13/02/2024	8 °C, dry, no wind	N.A.	JD, MP	4	1
29/02/2024	7 °C, dry, light wind	N.A.	WP, RO	3	0
20/03/2024	8 °C, dry, no wind	N.A.	N.A.	1	0
04/04/2024	8 °C, dry, light wind	N.A.	N.A.	1	0

* *BTO species codes: MP - magpie, HC – hooded crow, RO - rook, WP – woodpigeon, BH – black-headed gull, HG – herring gull, JD - jackdaw, PW – pied wagtail*

In summary, the only SCI species recorded (refer to Table 1) was black-headed gull, which was only present in low numbers (5 and 3 individuals), and in a small proportion of surveys (2 of 14 surveys). There will be alternative habitat for this species in the 0.5 ha of amenity grassland that will be retained to the east of the Site. Therefore, the development of the Site will have no impact on this or any other SPA species associated with Dublin Bay.

3.2 Other birds

Some common suburban birds were observed during the surveys, including magpie, hooded crow, rook, jackdaw, woodpigeon, herring gull and pied wagtail. No species of conservation importance were recorded.

3.3 Anthropogenic disturbance

There was an average of 5.1 pedestrian passes through the Site per hour (approx. one pass every 12 minutes), and 0.8 dog walkers (an average of one pass every 75 minutes). This is considered to be a relatively low level of disturbance, and of a level that would be unlikely to disturb birds.

4 Conclusion

The Site was not used by brent geese or any other birds associated with the SPAs in Dublin Bay. The only Special Conservation Interest recorded was black-headed gull, but it was only present in small numbers, and it is a generalist species that would readily be able to adapt to changes at the Site. Alternative habitat is available immediately to the east of the Site.

On this basis, we conclude that the proposed development will have no impact on any bird species associated with the SPAs in Dublin Bay.

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