
Ecological Impact Assessment

Social Housing Bundle 4, Development at
Wellmount Road, Finglas
26 June 2024



NM Ecology Ltd - Consultant Ecologists

38 Maywood Avenue, Raheny, Dublin 5

Website: www.nmecology.com

Email: info@nmecology.com

Tel: 087-6839771

Executive Summary

This Ecological Impact Assessment has been prepared by NM Ecology Ltd on behalf of Dublin City Council regarding a proposed residential development adjacent to Wellmount Road in Finglas, Dublin 11. The proposed development will involve the construction of 77 apartments, the provision of communal and public open space, and associated works. The aim of this report is to identify and evaluate the impacts of the proposed development on ecosystems and their components, including designated sites, habitats, flora and fauna.

There are no designated sites in the vicinity of the proposed development site (hereafter referred to as 'the Site'). Some designated sites were identified in the surrounding area, but there are no surface water (or other) pathways connecting them to the Site, so impacts can be ruled out.

The Site is occasionally used as an inland feeding site by brent geese, which are a qualifying interest of the *North Bull Island SPA* and the *South Dublin Bay and River Tolka Estuary SPA*. The proposed development will make the Site unsuitable for geese, as they favour large open areas of grassland without trees or ground vegetation. However, the Site is only used on an occasional basis by relatively low numbers of geese, and there are several alternative sites nearby of higher foraging value, so the development of the Site will have an imperceptible impact on them. A *Winter Bird Survey Report* and *Screening for Appropriate Assessment* report accompany the application. It was concluded in the AA screening report that the proposed development will not be likely to have a significant effect on any European sites.

Habitats within the Site include amenity grassland, flower beds / borders and artificial surfaces, All are of Negligible botanical importance, so their removal will have no ecological impact. The landscaping scheme for the proposed development will include a range of native trees and shrubs, a wildflower meadow, a detention basin, and the installation of bird boxes. These measures will result in a net gain in the biodiversity value of the Site.

As the Site has little or no ground vegetation and is surrounded by roads on all sides, it is considered unsuitable for otters, badgers or other large terrestrial mammals. The extent of artificial lighting within the site and surrounding area makes it unsuitable for bats. With the exception of brent geese (discussed above), all birds observed at the Site are common and widespread in suburban areas. Therefore, the Site is of negligible importance for any protected fauna.

Subject to the successful implementation of these measures, we conclude that the proposed development will not cause any significant negative impacts on designated sites, habitats, legally protected species, or any other features of ecological importance.

Table of Contents

1	Introduction	4
1.1	Assessment brief	4
1.2	Statement of authority	4
2	Methods	5
2.1	Scoping	5
2.2	Data collection and walkover survey	5
2.3	Valuation of ecological features	6
2.4	Ecological Impact Assessment.....	7
3	Development proposals.....	7
3.1	Description of the proposed development	7
3.2	Other nearby developments (potential in-combination effects).....	8
4	The Receiving Environment.....	8
4.1	Environmental setting	8
4.2	Designated sites	8
4.3	Habitats and flora	10
4.4	Protected fauna	11
4.5	Potential limitations and information gaps.....	13
4.6	Identification of important ecological features	14
5	Predicted Impacts of the Proposed Development	15
5.1	Winter birds.....	15
5.2	Biodiversity Enhancement in the landscaping proposals.....	16
5.3	Potential cumulative / in-combination impacts.....	16
6	Proposed mitigation measures.....	16
7	Residual Impacts	17
8	References	17

1 Introduction

1.1 Assessment brief

The aim of this Ecological Impact Assessment (EclA) is to identify, quantify and evaluate the impacts of the proposed development on ecosystems and their components. This includes designated sites, habitats, flora and fauna. It has been prepared in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)*, which is the primary resource used by members of the Chartered Institute of Ecology and Environmental Management (CIEEM). The purpose of this document is to:

- Provide an objective and transparent assessment of the potential ecological impacts of the proposed development for all interested parties, including planning authorities and the general public,
- Facilitate objective and transparent determination of the consequences of the development in terms of national, regional and local policies relevant to ecology, and,
- Propose the steps that will be taken to adhere to legal requirements relating to designated sites and legally protected species (CIEEM 2018).

Although the above guidelines provide a framework for EclA, many processes rely on the professional judgement of an ecologist, including survey design, the valuation of ecological features, and the characterisation of impacts. An outline of the author's experience, training and accreditation is provided in the following section, which support his competency to make such judgements.

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.

2 Methods

2.1 Scoping

An Ecological Impact Assessment involves the following steps:

- Identification of designated sites within an appropriate zone of influence
- A walkover survey incorporating the following elements:
 - Classification and mapping of habitats
 - A search for rare / protected flora, and for invasive plant species
 - A search for field signs of rare or protected fauna (e.g. badgers), and habitat suitability assessments for species that are secretive, nocturnal or seasonal
 - Specialist surveys (e.g. bats, breeding birds) where appropriate
- Valuation of ecological features, review of legal considerations, and identification of important ecological features
- Assessment of impacts on important ecological features and development of appropriate mitigation strategies

2.2 Data collection and walkover survey

A desk-based scoping study was carried out using data from the following sources:

- Plans and specifications for the proposed development
- Bedrock, soil, subsoil, ground water and surface water maps from the Geological Survey of Ireland webmapping service, the National Biodiversity Data Centre, and the Environmental Protection Agency web viewer
- Maps and details of designated sites from www.npws.ie
- Biological records from the National Biodiversity Data Centre online mapping service
- The *Dublin City Development Plan 2022-2028*, and details of permitted or proposed developments from their online planning records

The following resources were used for the walkover surveys:

- Habitat surveys were carried out in accordance with *Best Practice Guidance for Habitat Survey and Mapping* (Smith et al 2011), and using the classification system of *A Guide to the Habitats of Ireland* (Fossitt 2000)
- Flora were identified using *Webb's An Irish Flora* (Parnell & Curtis 2012) and *The Vegetation Key to the British Flora* (Poland & Clement 2009). Nomenclature follows the plant crib of the Botanical Society of the British Isles (BSBI 2007). The abundance and extent of species is described using the DAFOR scale (Dominant, Abundant, Frequent, Occasional, Rare)
- Fauna surveys followed the methods outlined in the *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA 2006), with reference to other species-specific methods as appropriate.

Desktop data from internet resources was accessed in March and April 2024, a multi-disciplinary survey was carried out on 15 June 2023, and a series of winter bird surveys were undertaken between September 2023 and April 2024.

Winter bird surveys

Bird surveys were carried out 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 review of the survey area from a fixed vantage point. To assess levels of anthropogenic disturbance at the Site, the number of pedestrians, dog walkers and other sources of disturbance was recorded during each survey. Further details of surveys methods are provided in the Winter Bird Survey Report that accompanies the application.

2.3 Valuation of ecological features

Based on the information collected during desktop and walkover surveys, the ecologist assigns an ecological importance to each feature based on its conservation status at different geographical scales (Table 1). For example, a site may be of National importance for a given species if it supports a significant proportion (e.g. 5%) of the total national population of that species.

Table 1: The six-level ecological valuation scheme used in the CIEEM guidelines (2018)

Ecological value	Geographical scale of importance
International	International or European scale
National	The Republic of Ireland or the island of Ireland
Regional	Leinster, and/or the east midlands of Ireland
County	County Dublin
Local	Urban / suburban areas in Dublin 11
Negligible	None, the feature is common and widespread

It is accepted that any development will have an impact on the receiving environment, but the significance of the impact will depend on the importance of the ecological features that would be affected. The following is outlined in the CIEEM guidelines: *“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.”*

For this report we have only assessed impacts on ecological features of Local importance or higher (refer to Table 1), or those that receive legal protection. These features are termed 'important ecological features' and are listed in Section 4.6. Impacts on features of Negligible ecological importance (e.g. amenity grasslands) that do not receive legal protection are not considered to be significant, so they are not included in the impact assessment.

2.4 Ecological Impact Assessment

Potential direct, indirect or cumulative impacts on ecological features can be described in relation to their magnitude, extent, duration, reversibility and timing/frequency, as outlined in the CIEEM (2018) guidelines. Depending on the type of impact and the sensitivities of the important ecological feature, the ecologist may determine that the impact would have a 'significant effect'. The following definitions are provided in the CIEEM guidelines: *"A significant effect is simply an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project". "For the purpose of EclA, a 'significant negative effect' is an effect that undermines biodiversity conservation objectives for 'important ecological features', or for biodiversity in general."* Where significant impacts are identified, measures will be taken to avoid, minimise or compensate for impacts (where possible). Subject to these measures, the EclA concludes with a summary of residual impacts.

3 Development proposals

3.1 Description of the proposed development

The proposed development will involve the construction of an apartment building containing 77 apartments, located in the west of the Site adjoining Cardiffsbridge Road. Car parking will be provided at two locations, with road access off Cardiffsbridge Road and Wellmount Road. Communal open space will be provided around the apartment building, and a larger area of landscaped public open space will be provided in the east of the Site.

Foul water will be discharged to local authority foul sewers to the south and west of the Site and conveyed to the Ringsend Waste Water Treatment Plant. The Ringsend WWTP is currently exceeding its organic capacity, but a major upgrade is in progress that will provide sufficient capacity by 2025. The WWTP upgrade will be completed before the proposed development is operational / occupied, so there will be capacity to accept the effluent. The additional load from the proposed development (128 Population Equivalent) will represent 0.005% of the load of the upgraded capacity of Ringsend WWTP (2,400,000 Population Equivalent), which is a negligible increase.

Rainwater runoff from roofs and other impermeable surfaces will be channelled to a detention basin in the centre of the Site, and discharged at a controlled rate to a local authority storm drain. The system will include an oil and hydrocarbon interceptor.

3.2 Other nearby developments (potential in-combination effects)

Live and recently-approved planning applications in the vicinity of the Site were reviewed on the online planning records of Dublin City Council, but none were found. Therefore, no potential in-combination effects were identified.

4 The Receiving Environment

4.1 Environmental setting

Site location and surroundings

The proposed development site (hereafter referred to as 'the Site') covers a field of amenity grassland enclosed by Cardiffsbridge Road, Wellmount Road and Wellmount Drive. There is a small shopping centre to the north of the Site, but it is surrounded on all other sides by housing estates.

Geology and soils

The underlying bedrock is dark limestone / shale, which is a locally-important aquifer. Subsoils are limestone till, and soils are made ground.

Hydrology

The EPA database of rivers and streams does not show any watercourses within the Site or surrounding area, and none were observed during the site inspection.

The closest watercourse is the River Tolka, which is approx. 600 m south of the Site. Due to its distance from the Site and the presence of intervening buildings and roads, it can be concluded that the Site has no connection to the River Tolka.

The Royal Canal is located approx. 900 m south of the Site, on the opposite side of the River Tolka valley. Canals are self-contained hydrological features that do not interact with surrounding surface water or groundwater features, so there is no possibility that any waterborne materials from the Site could reach the canal.

In summary, the Site has no connection to any watercourses.

4.2 Designated sites

A map of designated sites in the surrounding area is provided in Figure 1, and details of the designated sites shown in the image are provided in Table 2.

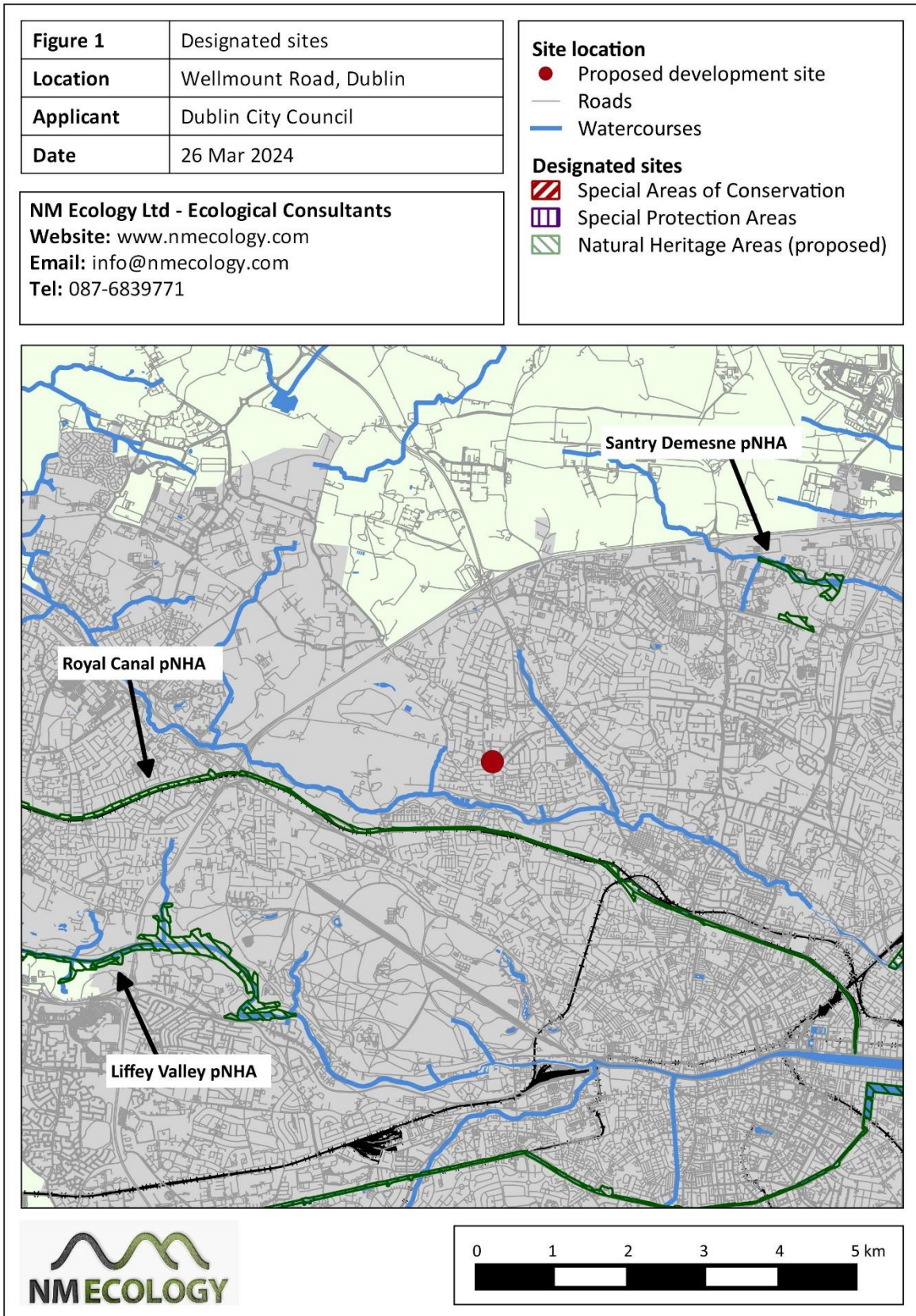


Table 2: Designated sites shown in Figure 1

Site Name	Distance	Reasons for designation
Royal Canal pNHA (site code 2103)	0.9 km south	Diversity of habitats, ecological connectivity, and protected aquatic plant species (Opposite-leaved Pondweed <i>Groenlandia densa</i>)
Santry Demesne pNHA (178)	4.2 km north-east	Former demesne woodland and a protected species (Hairy St John's-wort <i>Hypericum hirsutum</i>)
Liffey Valley pNHA (128)	4.2 km south-west	Deciduous woodland, wetlands and rare plant species

The Site is not within or adjacent to any designated sites, so there is no possibility of direct effects.

It was established in Section 4.1 that there is no surface water (or other) pathway linking the Site with the Royal Canal, River Liffey or River Santry, so a surface water pathway to any of the pNHAs in Table 2 can be ruled out. Pathways via groundwater, land and air can be ruled out due to distance.

Therefore, the proposed development poses no risk of impacts on any designated sites.

4.3 Habitats and flora

Habitats recorded within the Site are discussed below, using the habitat classification system of *A Guide to Habitats in Ireland* (Fossitt 2000). A habitat map is not provided, because the distribution and extent of habitats can be readily discerned from aerial photography.

4.3.1 Phase 1 habitat survey

The majority of the Site consists of amenity grassland (GA2), which is regularly mowed. The dominant species is perennial rye-grass *Lolium perenne*, with frequent white clover *Trifolium repens* and greater plantain *Plantago major*, and occasional creeping buttercup *Ranunculus repens* and daisy *Bellis perennis*. Amenity grasslands are very common and widespread throughout Ireland, and are of Negligible ecological importance.

Flowers beds and borders (BC4) have been planted in strips around the margins of the Site, including species like cornflower *Centaurea* sp, poppy *Papaver* sp., oxeye daisy *Leucanthemum* sp., marigold *Calendula* sp., and viper's-bugloss *Echium* sp. These areas are not mowed or weeded, and dry meadows / grassy verges (GS2) has formed between the ornamental plants. These areas have abundant perennial rye-grass, Yorkshire-fog *Holcus lanatus* and false oat-grass *Arrhenatherum elatius*. Frequent species include creeping bent *Agrostis stolonifera*, creeping buttercup, creeping thistle *Cirsium arvense*, hedge mustard

Sisymbrium officinale, lesser burdock *Arctium minus* and wild turnip *Brassica napus*. All of these species are common and widespread, so the habitat is of Negligible importance.

There are some immature trees around the margins of the Site, including hornbeam *Carpinus betulus* in the west of the Site, crab apple *Malus sylvestris* in the south of the Site and rowan *Sorbus aucuparia* in the east of the Site. The rowan trees are very small, and appear to have been planted in the last 2 – 3 years. All of these trees are young, and they do not form a coherent woodland or treeline feature, so they are of Negligible importance.

4.3.2 *Rare or protected flora*

No rare or protected plants were encountered.

4.3.3 *Invasive plant species*

No Japanese Knotweed *Fallopia japonica* or any other invasive plant species listed on the third schedule of the *European Communities (Birds and Natural Habitats) Regulations 2011* were recorded within the Site.

4.4 **Protected fauna**

4.4.1 *Over-wintering birds associated with SPAs*

Background

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. 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.

The Site includes a large open area of amenity grassland with a surface area of approx. 1.1 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. Detailed methods and results are presented in the Winter Bird Survey Report that accompanies this application, but the results are summarised below.

Table 3: Special Conservation Interests of the SPAs in Dublin Bay

Site Name	Distance	Reasons for designation
South Dublin Bay and River Tolka Estuary SPA (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 (over-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: wintering populations of 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 over-wintering populations)

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. No geese were recorded during the other ten surveys.

Based on these results, it was concluded that the Site is used on an occasional basis by brent geese, usually only in flocks of moderate importance. We consider it to represent a Site of Local importance. Further details are provided in the Winter Bird Survey Report that accompanies this application.

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.

Other birds

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. Suburban grasslands are rarely of importance for any birds of conservation importance (aside from SPA species, which are discussed separately above). The Site does not contain any trees of sufficient size for nesting birds. Therefore, the Site is of Negligible importance for any other bird species.

4.4.2 *Terrestrial mammals*

No field signs of any mammals were observed during the site inspection. As the Site consists primarily of amenity grassland, has no ground cover, and is surrounded by roads on all sides, it is unsuitable for any protected mammal species, e.g. otter, badger, hedgehog. Therefore, it can be concluded that the Site is of no importance for any terrestrial mammals.

4.4.3 *Bats*

Bats are common and widespread in Ireland. During the day they roost in buildings, bridges and mature trees. At night they forage around wetlands (lakes, rivers, swamps), woodland and hedgerows. They typically avoid urban areas (particularly areas with artificial lighting) and large open areas without trees or shrubs (e.g. grasslands).

There are no buildings or mature trees within the Site, so it is unsuitable for roosting bats. The main habitat within the Site is amenity grassland, and the trees are immature and do not form any coherent habitat feature (e.g. woodland, treeline), so the Site is considered to be very low quality foraging habitat. It is surrounded by streetlights on all sides, which would act as a barrier to the dispersal of bats into the Site.

Therefore, the Site is considered to be of no importance for roosting or foraging bats.

4.4.4 *Fish and aquatic fauna*

There are no waterbodies in the vicinity of the Site, so it is of no importance for fish or other aquatic fauna.

4.4.5 *Reptiles and amphibians*

No reptiles or amphibians were observed during the survey, nor any ponds or other permanent wetland features suitable for breeding. Therefore, the Site is of Negligible importance for these taxa.

4.4.6 *Terrestrial invertebrates*

The habitats within the Site are common in suburban landscapes in Ireland, so it is considered to be of Negligible importance for invertebrates.

4.5 **Potential limitations and information gaps**

The initial site inspection was carried out in June, which is an ideal time of year for most ecological features. Habitats within the Site are simple and highly-modified, so it was possible to rule out the presence of many ecological features (e.g. bats) based on habitat conditions, and without the need for surveys.

Winter bird surveys covered the full season for relevant species, and had a high survey effort, so there is not considered to be any limitation in the survey data or conclusions. It is

acknowledged 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.

4.6 Identification of important ecological features

Table 3 provides a summary of all ecological features identified within the Site, including their importance and legal / conservation status. For the purposes of this impact assessment, any features that are of Local (or higher) ecological importance are considered to be 'Important Ecological Features'.

Table 3: Important ecological features within the Site

Ecological feature	Importance	Legal status	Important feature?
Designated sites	-	HR, WA	No
Amenity grassland (GA2)	Negligible	-	No
Flower beds and borders (BC4)	Negligible	-	No
Dry meadows and grassy verges (GS2)	Negligible	-	No
Artificial surfaces (BL3)	Negligible	-	No
Rare / protected flora	N.A.	-	No
Invasive plant species	N.A.	-	No
SPA birds	Local	HR	Yes
Other birds	Negligible	WA	No
Terrestrial mammals	Negligible	WA	No
Bats	Negligible	HR, WA	No
Fish and aquatic fauna	N.A.	WA	No
Reptiles and amphibians	Negligible	-	No
Invertebrates	Negligible	-	No

* HR – European Communities (Birds and Natural Habitats) Regulations 2011 (as amended);
WA - protected under Section 19 or 20 of the Wildlife Act 1976 (as amended)

The only Important Ecological Feature identified in this assessment is winter birds; impacts are assessed in Section 5.1. All other ecological features discussed in Section 4 are of Negligible ecological importance, so they do not require further assessment.

Policy GI 16 of the Dublin City Development Plan requires that “*opportunities should be taken as part of new development to provide a net gain in biodiversity and provide links to the wider Green Infrastructure network*”. Ecological enhancement measures for the scheme are reviewed in Section 5.2, and justification is provided to achieve a net gain in biodiversity.

5 Predicted Impacts of the Proposed Development

5.1 Winter birds

Brent geese

As outlined in Section 4.4.1, the Site is used on an occasional basis by brent geese, usually only in flocks of moderate importance. Further details are presented in the *Winter Bird Survey Report* that accompanies this application, but a summary is provided below.

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.

A 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 1 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 gull

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.

5.2 Biodiversity Enhancement in the landscaping proposals

Existing grassland, flower borders / dry meadow and artificial surfaces will be cleared to accommodate the proposed development. As discussed in Section 4.3, these habitats are currently of Negligible importance.

The loss of baseline habitats will be compensated by the incorporation of biodiversity measures in the landscaping proposals for the proposed development. The following measures are shown in the landscape plan:

- New trees and shrubs will be planted in areas of communal and public open space. The majority will be native species, including some that produce berries (hawthorn, rowan) suitable for over-wintering passerine birds (e.g. thrushes)
- A patch of wildflower meadow will be included in the east of the Site
- Bird boxes will be provided, including designs suitable for common garden birds (e.g. finches, tits, blackbirds) and swift nesting boxes on buildings of > 5 m height
- Provision of a detention basin in the centre of the Site, which will hold water during periods of high rainfall.

Overall, the proposed landscaping scheme is expected to result in a net gain in the biodiversity value of the Site compared to the baseline habitats.

5.3 Potential cumulative / in-combination impacts

No developments were identified in Section 3.2 that could potentially lead to in-combination effects.

6 Proposed mitigation measures

No mitigation measures are proposed.

7 Residual Impacts

The proposed development will require the removal of existing habitats of Negligible importance. The loss of these habitats will be compensated by the landscaping scheme for the proposed development, which will include native trees, meadows and bird nest boxes. These measures are expected to result in a net gain in the biodiversity value of the Site compared to the baseline habitats. This will ensure compliance with Policy GI 16 of the Dublin City Development Plan.

Brent geese have been recorded at the Site. However, we conclude that the proposed development will have an imperceptible impact on this species, 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 gulls were also present, but they are generalists that will continue to use the Site following the proposed development, so they will not be significantly affected.

In summary, it can be concluded that the proposed development will not cause any significant negative impacts on designated sites, habitats, legally protected species, or any other features of ecological importance.

8 References

- Bat Conservation Trust (ed. Collins, J.) 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition). Available online
- 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
- Botanical Society of the British Isles, 2007. *Plant species nomenclature checklist*. Botanical Society of the British Isles, Southampton.
- Chartered Institute of Ecology and Environmental Management, 2018. *Guidelines for Ecological Impact Assessment in the U.K and Ireland: Terrestrial, Freshwater and Coastal* (2nd Edition). C.I.E.E.M., Hampshire, England.
- Marnell, F., Kingston, N., Looney, D., 2009. *Ireland Red List No. 3 – Terrestrial Mammals*. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Parnell, J. & Curtis, T., 2012. *Webb's An Irish Flora*, Eighth Edition. Cork University Press.
- Poland, J., Clement, E., 2009. *The Vegetation Key to the British Flora*. John Poland and the Botanical Society of the British Isles, Southampton.
- 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