
Ecological Impact Assessment

Proposed Residential Development at Balally, Dublin 16

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Executive Summary

This Ecological Impact Assessment has been prepared by NM Ecology Ltd on behalf of Dun Laoghaire – Rathdown County Council regarding a proposed residential development at Balally, Dublin 16. The proposed development will involve the construction of 62 dwellings, a community facility 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.

Designated sites

There are no designated sites in the vicinity of the Site. Three designated sites were identified within 5 km of the Site, but there are no surface water (or other) pathways connecting them to the Site, so any risk of impacts can be ruled out.

A series of winter bird surveys was carried out to determine whether the Site was of any importance for brent geese or other birds associated with SPAs in Dublin Bay. Fourteen surveys were undertaken between September 2023 and April 2024. The only SPA species recorded was black-headed gull, which was present in very low numbers (3 and 5 individuals) and on an occasional basis (present during 2 of 12 surveys). It is a generalist species that will be able to adapt to changes at the Site. Therefore, the proposed development will have no impact on any SPA bird species.

A *Screening for Appropriate Assessment* report accompanies the application. It was concluded that the proposed development will not be likely to have a significant effect on any European sites.

Habitats and flora

The only habitats within the Site are amenity grassland and treeline. Amenity grasslands are common and widespread throughout Dublin, and the treeline consists almost entirely of non-native trees (Eucalyptus, cypress and beech), so both habitats are considered to be of Negligible ecological importance. No legally-restricted invasive plant species (e.g. Japanese knotweed) were recorded at the site.

Due to changes in ground levels at the Site it will not be possible to retain any of the existing (non-native) trees. A variety of native trees (e.g. crabapple, elder, hawthorn, hazel, birch, alder) and hedgerows will be planted throughout the scheme, as well as some hedgerows and patches of native flowers and other ornamental planting. Considering that the Site has Negligible baseline value, and that non-native trees will be replaced by native species, the proposed development will result in a slight positive impact on biodiversity within the Site.

Fauna

Habitats within the site are unsuitable for otters, badgers or other large terrestrial mammals. A bat survey was carried out, but no bats were recorded, likely due to the extent of artificial lighting in the surrounding area. Birds observed at the Site are common and widespread. Therefore, the Site is of Negligible importance for any fauna.

Conclusion

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.

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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 *Dún Laoghaire-Rathdown County 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 the *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 January 2024. A multi-disciplinary site inspection was carried out on 9 June 2023, a bat survey on 31 August 2023, and a series of winter bird surveys between September 2023 and April 2024.

Bat survey

The bat activity survey was carried out at dusk on 31 August 2023. It involved a slow-paced walk around the boundaries and interior of the Site for one hour in the post-sunset period, recording any bat passes using a handheld bat detector (Anabat Walkabout, Titley Scientific Inc.). Survey methods were developed using *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 3rd edition, 2016). Weather conditions were suitable for a bat survey, with a sunset temperature of 16 °C and no wind or rain.

Winter bird surveys

Surveys were carried out every two weeks from September 2023 to April 2024, 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 at the south-western corner of the Site. If any SPA 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. The number of pedestrians and dog walkers were recorded in order to assess background disturbance. Detailed methods, results and conclusions are presented in the Winter Bird Survey Report in Appendix 1.

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	Suburban areas around Ballally / Sandyford Business Park
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 a six-storey building containing 62 apartments and a community facility. Road access will be from Maples Road at the northern boundary, and underground parking will be provided. Public open space will be created on all sides of the building, and a pedestrian / cycle path will be created along the eastern boundary.

Foul effluent will be discharged to a local authority foul sewer at the south-eastern corner 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 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 (228 Population Equivalent) will represent 0.01% 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 an attenuation tank in the north of the Site, and discharged at a controlled rate to a local authority storm drain under Maples Road. 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 Dún Laoghaire - Rathdown County Council, and the following was noted:

- A Largescale Residential Development (reference LRD23A/0214) immediately to the west of the Site was recently denied planning permission.
- Permission was granted in 2023 for an expansion of the adjacent Supervalu store into a vacant printers unit (immediately west of the Site), which would involve a change of use (reference D22A/0954). All work would take place within existing buildings, so there is no risk of cumulative ecological effects

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) is located in a suburban area in Balally. It consists mainly of amenity grassland, with a line of mature, non-native trees on its north-western and northern boundaries and some scattered immature trees at its southern end.

The north-western boundary of the Site adjoins Maples Road, and the southern boundary adjoins Blackthorn Drive. The Balally Shopping Centre (a small commercial development) is located immediately to the west of the Site, and an open area of amenity grassland is located

to the east. A single-storey building - the Balally Family Resource Centre / Scout hall - is located to the north-east of the Site.

In the broader surroundings there are housing estates to the north and south of the Site, a school to the west (Queen of Angels primary school), and Sandyford Business Park to the east.

Geology and soils

The underlying bedrock is granite, which is a poor 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 on the EPA database is the Brewery Stream, which is located approx. 300 – 400 m south-east of the Site at the closest point. It arises in the Woodside / Lamb's Cross region to the south of the Site, and flows north-east through Sandyford, Stillorgan and Blackrock to reach the coast in Dublin Bay. However, the stream is highly modified, and a section measuring approx. 2 km in length has been culverted under the M50 and Sandyford Business Park.

At present, the proposed development does not have an artificial drainage network, and all rainfall soaks to ground in the existing amenity grassland within and to the east of the Site. The proposed development will discharge to a local authority storm drain. Therefore, we conclude that there is no clear surface water connection between the Site and the Brewery Stream, or any other watercourse.

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.

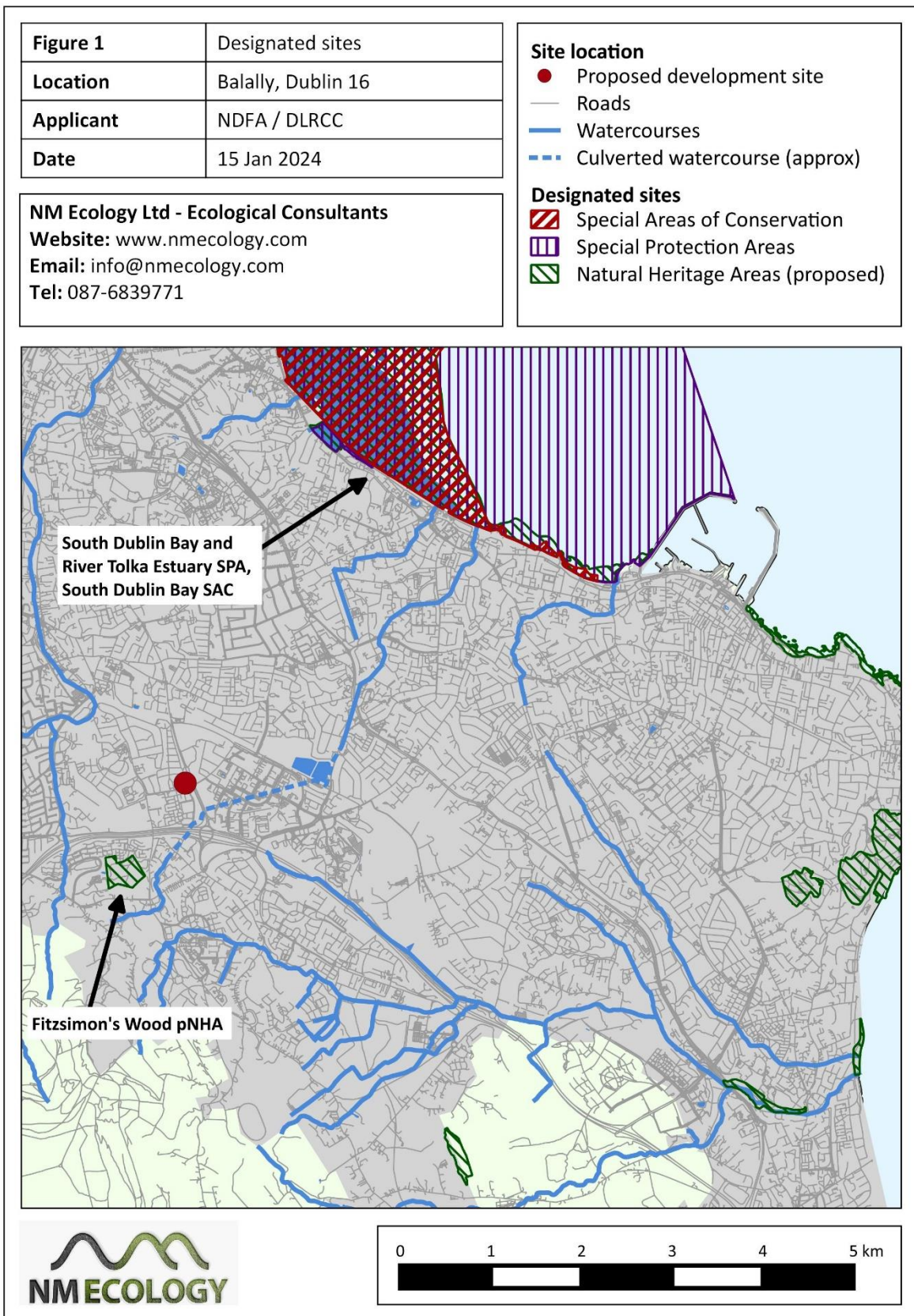


Table 2: Designated sites shown in Figure 1

Site Name	Distance	Reasons for designation
Fitzsimon's Wood pNHA (site code 1753)	1.0 m south-west	Mature birch, oak and holly woodland, gorse-dominated dry heath. There are some marshy areas, and outcrops of bedrock with ferns and mosses. The pNHA is being degraded by recreational pressure.
South Dublin Bay SAC (210)	4.1 km north-east	Annex I habitats: inter-tidal mudflats / sandflats, <i>Salicornia</i> and other annuals), annual vegetation of drift lines, embryonic shifting dunes Annex II species: none
South Dublin Bay and River Tolka Estuary SPA (4024)	4.1 km north-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)

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

Potential indirect impacts were considered using the *source-pathway-receptor* approach, which reviews *pathways* (e.g. surface water) between the *source* (the Site) and the *receptor* (a European site). It was established in Section 4.1 that the Site does not have a connection to any watercourses, so there is no hydrological pathway to any designated sites. Due to the distances involved there is no risk of a pathway via groundwater, land or air. As there are no pathways linking the Site to any designated sites, there is no possibility of indirect effects.

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 included, because the extent and distribution 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 smooth meadow-grass *Poa pratensis*, white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*, and occasional dandelion *Taraxacum officinale*. Amenity grasslands are very common and widespread throughout Dublin, so they are of Negligible ecological importance.

Approx. 5 no. widely-spaced immature Norway maple *Acer platanoides* trees of 5 – 10 m height are located in the south of the Site. These species are non-native, and thus of Negligible ecological importance.

A treeline (WL2) is located along the northern and north-western boundaries of the Site. It consists primarily of *Eucalyptus* sp. and Lawson's cypress *Cupressus lawsoniana*, with a small number of silver birch *Betula pendula*. The northern boundary also has a number of beech *Fagus sylvatica*. There is no understorey or ground vegetation; the underlying habitat is amenity grassland. As the treeline consists almost entirely of non-native trees, it is of Negligible botanical importance. However, the trees may provide habitat for nesting birds and other fauna, which is considered in Section 4.4.

In summary, all habitats within the Site are of Negligible botanical 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*

A series of 14 winter bird surveys was carried out at the site between September 2023 and April 2024. Detailed methods, results and conclusions are presented in the Winter Bird Survey Report in Appendix 1, but the results are summarised below.

No brent geese or any waders / waterfowl (e.g. oystercatchers, godwit) were recorded at the Site during any of the surveys.

The only SPA species recorded was black-headed gull, which was only present in low numbers (5 and 3 individuals), and in a small proportion of surveys (2 of 12 surveys). It is a generalist species that will be able to adapt to changes at the Site. 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, Site is of Negligible importance for any of the SPA species associated with Dublin Bay.

4.4.2 *Other birds*

Some common countryside 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. Suburban grasslands are rarely of importance for any birds of conservation importance (aside from SPA species, which are discussed above). Therefore, the Site is of Negligible importance for any other bird species.

Nonetheless, it is possible that birds could nest within the treeline along the northern and north-western boundaries of the Site. Birds and their nests are protected under the *Wildlife Act 1976* (as amended).

4.4.3 *Terrestrial mammals*

No field signs of any mammals were observed during the site inspection. As the Site consists primarily of amenity grassland and has no ground cover, it is considered unsuitable for any protected mammal species, e.g. otter, badger, hedgehog.

4.4.4 *Bats*

Bats are common and widespread in Ireland. During the day they roost in buildings, bridges and mature trees, while 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).

Potential roost features

There are no buildings, bridges or other built structures within the Site. The buildings adjoining the Site – Balally Shopping Centre and the Balally Family Resource Centre / Scout Hall – are modern structures with no potential roosting features. No cavities, crevices or other potential roost features were identified in any of the mature trees. Therefore, the Site and its immediate surroundings are of Negligible importance for roosting bats.

Foraging / commuting habitat

A bat activity survey was carried out to assess foraging / commuting activity within the Site and the green space to the east. The survey took place on 31 August, which is within the season of peak foraging activity for bats (typically May to September). Weather conditions were suitable for a bat survey, with a sunset temperature of 16 °C and no wind or rain. The survey area covered the Site boundary as well as the green area east of the Site as far as the Drummartin Link Road.

No bats were recorded during the survey. This is likely to be explained by the low suitability of the habitat for bats, and to the high levels of artificial lighting in the area. The treeline is not connected to any other habitat features (e.g. woodlands), so it would not be of importance for commuting bats. The Site is surrounded by streetlights on all sides, which would act as a barrier to the dispersal of bats into the Site.

In summary, the Site is of Negligible importance for roosting or foraging bats.

4.4.5 *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.

4.4.6 *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.

4.4.7 *Terrestrial invertebrates*

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

4.5 **Potential limitations and information gaps**

The site inspection and bat survey were carried out in June and August, and the winter bird surveys between September and April. These are ideal survey periods for all relevant ecological features, so the assessment is not considered to have any limitations or information gaps.

4.6 **Identification of important ecological features**

Table 3 provides a summary of all ecological features identified on the Site, including their importance and legal status. For the purposes of this impact assessment, any features that are of Local ecological importance, or that receive legal protection, are considered to be 'important ecological features', and will be addressed in the impact assessment.

Table 3: Important ecological features within the Site

Ecological feature	Importance	Legal status	Important feature?
Designated sites	None	HR, WA	No
Amenity grassland (GA2)	Negligible	-	No
Scattered trees	Negligible	-	No
Treeline (WL2)	Negligible	-	No
Rare / protected flora	N.A.	-	No
Invasive plant species	N.A.	-	No
SPA birds	Negligible	HR	No
Other birds	Negligible	WA	Yes
Terrestrial mammals	Negligible	WA	No

Ecological feature	Importance	Legal status	Important feature?
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)*

In summary, the only important ecological feature identified for this assessment is nesting birds. Potential impacts are considered in Section 5, and mitigation measures are presented in Section 6. All other ecological features discussed in Section 4 are considered to be of Negligible ecological importance, so they do not need to be considered further in this assessment.

5 Predicted Impacts of the Proposed Development

5.1 Disturbance of breeding birds and mammals

Under Sections 22 and 23 of the *Wildlife Act 1976 (as amended)*, it is an offence to kill or injure a protected bird or mammal, or to disturb their breeding / resting places. Most birds nest between March and August (inclusive), and the breeding season for most small mammals is similar. Therefore, it is strongly recommended that site clearance works are carried out between September and February (inclusive), i.e. outside the nesting season. If this is not possible, an ecologist will survey the affected areas in advance to assess whether any breeding birds or mammals are present. If any are encountered, vegetation clearance will be delayed until the breeding attempt has been completed, i.e. after chicks have fledged and a nest has been abandoned.

5.2 Landscaping and biodiversity change

The existing grassland, treeline and scattered trees will be cleared at the outset of the project. These features are all of Negligible botanical importance, so their removal will have an imperceptible ecological impact.

The *Landscape and Biodiversity Plan* for the proposed development (prepared by Mitchell & Associates, 2024) includes some biodiversity-enhancement measures that will be implemented as part of the landscaping scheme, including:

- Native trees and hedgerows planted throughout the Site, including crabapple, elder, hawthorn, hazel, birch and alder
- A rain garden planted with native wetland flora

- Native feature flowering in streetscapes
- Provision of nest boxes for swifts, swallows and other species

These measures will compensate for removal of existing amenity grassland and non-native treeline. They will increase the diversity of native plants species at the Site, including trees, shrubs and ground flora. When compared to the baseline environment, they are considered likely to have a slight positive effect on the biodiversity value of the Site.

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

6.1 Protection of birds during site clearance works

Under Section 22 of the *Wildlife Act 1976* (as amended), it is an offence to kill or injure any bird, or to disturb their nests. Most birds nest between March and August (inclusive), so it is strongly recommended that tree felling works are carried out between September and February (inclusive), i.e. outside the nesting season. If this is not possible, an ecologist will survey the affected areas in advance in order to assess whether any nesting birds are present. If any are encountered, vegetation clearance will be delayed until the breeding attempt has been completed, i.e. after chicks have fledged and a nest has been abandoned.

7 Residual Impacts

Site clearance works will take place outside the nesting season, or the area will be surveyed by an ecologist to confirm that no nesting birds are present. This will avoid any direct impacts on breeding birds or small mammals, and prevent a legal offence under the *Wildlife Act 1976* (as amended).

The landscaping scheme for the proposed development will increase the diversity of native species at the Site, and thus will have a slight positive effect on the biodiversity value of the Site.

Subject to these measures, 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

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Appendix 1
Winter Bird Survey Report