
Preliminary Ecological Appraisal

Social Housing Bundle 5, Development
at Forbes Lane, The Liberties, Dublin 8

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Executive Summary

This document has been prepared by NM Ecology Ltd on behalf of Dublin City Council regarding a proposed residential development at the junction of Forbes Lane and Marrowbone Lane, Dublin 8. The proposed development will involve the demolition of existing buildings and the construction of 108 apartments, and associated works. The aim of this document is to identify any important ecological features at the proposed development site (hereafter referred to as 'the Site'), as part of a broader due-diligence process.

The Site is not within or adjacent to any designated sites. Designated sites in the surrounding area were reviewed, but none are connected by surface water (or other) pathways, so any risk of indirect impacts can be ruled out. A *Screening for Appropriate Assessment* report accompanies the application, in which it was concluded that the proposed development will not be likely to have a significant effect on any European sites.

Habitats within the Site consist entirely of buildings and artificial surfaces, which are of no botanical importance and pose no constraint to the proposed development. No rare flora or invasive plant species were recorded. Native trees and shrubs will be planted as part of the landscaping scheme, as well as some other biodiversity enhancement measures, which will result in a net gain in the biodiversity value of the Site.

The Site does not contain any suitable habitat for otters, badgers, hedgehogs or other protected mammals. It is unsuitable for roosting or foraging bats, due primarily to the extent of artificial lighting within and surrounding the Site. Some common and widespread bird species were recorded at the Site, but no species of conservation importance.

In summary, we have not identified any important ecological feature at the site, and the development will have no ecological impacts. Landscaping proposals will result in a net gain in the biodiversity value of the Site. No further ecological surveys or assessment are required. This document should be included in the planning application to demonstrate due diligence on ecological matters.

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1 Introduction

1.1 Assessment brief

NM Ecology Ltd was engaged to carry out a Preliminary Ecological Appraisal (PEA) of a proposed development site at the junction of Forbes Lane and Marrowbone Lane, Dublin 8. The proposed development will involve the demolition of existing buildings and the construction of 108 apartments and associated works.

The aim of this assessment is to identify any important ecological features that could potentially be affected by future development, as part of a broader due-diligence process. It has been prepared in accordance with the *Guidelines for Preliminary Ecological Appraisal* (2017) published by the Chartered Institute of Ecology and Environmental Management (CIEEM). The report concludes with a review of potential ecological considerations, and (if required) recommendations for further survey or assessment. If no ecological impacts are identified and no further surveys are required, the PEA can be submitted as part of a planning application to demonstrate due diligence. Where impacts are identified and / or further survey is required, the PEA can be adapted into an Ecological Impact Assessment.

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

The aim of this assessment is to identify any ecological features that may be affected by the proposed development. It 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 or protected flora, and for any legally-restricted non-native plant species (e.g. Japanese Knotweed)
- A search for field signs of rare or protected fauna (e.g. badgers, bats), and habitat suitability assessments for species that are shy, nocturnal or seasonal
- Valuation of ecological features and review of legal considerations
- Identification of potential ecological impacts
- Recommendations for mitigation measures or follow-up surveys

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

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 *New Flora of the British Isles, 3rd Edition* (Stace 2010), and *The Vegetative 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 2024, and a multi-disciplinary survey was carried out on 5 July 2023.

2.3 Valuation of ecological features

Based on the information collected during the 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 ecological importance for a given species if it supports a significant proportion (e.g., 5%) of the total national population of that species, or if it is designated as a Natural Heritage Area.

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.”*

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

Ecological importance	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 8
Negligible	None, the feature is common and widespread

For the purposes of this report, we pay greatest attention to ecological features that are of Local importance or higher, or those that receive legal protection. These features are termed ‘important ecological features’ and are listed in Section 3.6. Features of Negligible ecological importance (e.g., amenity grasslands) do not pose any constraint to development.

3 The Receiving Environment

3.1 Environmental setting

The proposed development site (hereafter referred to as ‘the Site’) covers a former roads maintenance depot used by Dublin City Council. It is paved with concrete and used for the storage of vehicles and materials. There are some pre-fabricated administration buildings in the north of the Site and a range of small warehouses / sheds used for the storage of materials. There are no green areas within the Site, and the only vegetation is ruderal species growing on patches of wind-blown sediment.

The surroundings are urban in character, and include terraced houses, apartment buildings, sports facilities and commercial units.

Geology and soils

The underlying bedrock is limestone (subcategorised as ‘dark limestone and shale’ on the GSI database), which is a locally-important aquifer. Subsoils are limestone till, and soils are made ground.

Hydrology

There are no watercourses in the vicinity of the Site. As it is entirely paved with concrete, all rainfall on the Site will be collected in an artificial drainage network and discharged to a local authority storm drain.

The closest watercourse on the EPA database of rivers and streams is the River Camac, which is approx. 700 m north-west of the Site. It has no connection to the Site. The River Poddle is also located approx. 700 m east of the Site, but it passes under the city centre in a lengthy culvert, so it also has no connection to the Site.

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

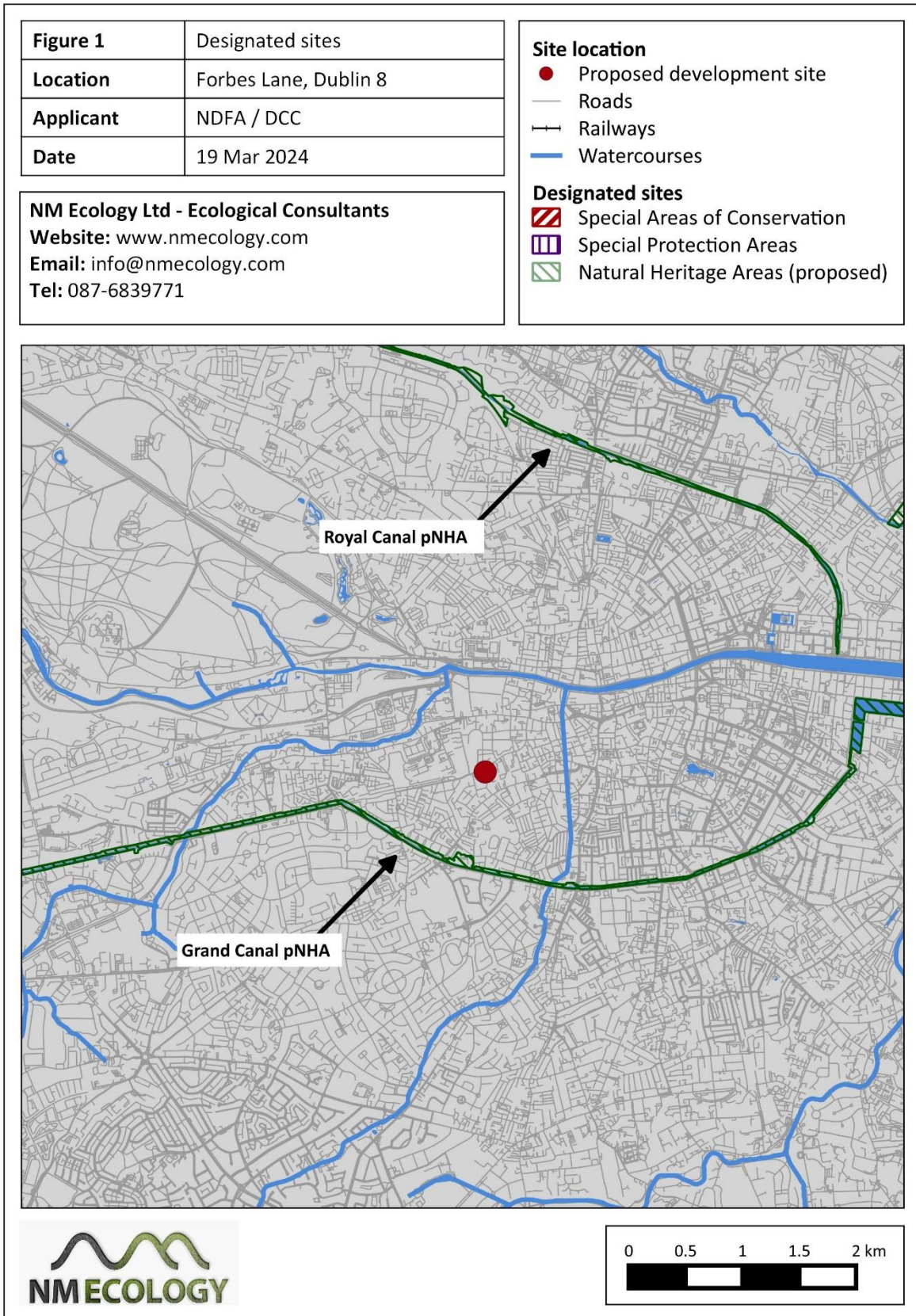
3.2 Designated sites

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

Table 2: Designated sites shown in Figure 1

Site Name	Distance	Reasons for designation
Grand Canal pNHA (2104)	0.7 km south	Extensive freshwater feature of value to a range of biodiversity, and with value as an ecological corridor
Royal Canal pNHA (site code 2103)	2.0 km north-east	Extensive freshwater feature of value to a range of biodiversity, and with value as an ecological corridor

The Site is not within or adjacent to any designated sites, so there is no possibility of direct effects. There are no surface water pathways linking the Site to any of the designated sites in Table 2, so there is no possibility of indirect effects. Distances are too great for impacts via groundwater, land or air. Therefore, the proposed development will have no impact on any designated sites.



3.3 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 readily be discerned from aerial photography.

3.3.1 Phase 1 habitat survey

The entire Site consists of buildings and artificial surfaces (BL3). There are a number of administrative buildings and warehouses / sheds, and all other areas are paved in concrete. Some ornamental / non-native shrubs (WS3) have been planted in pots around the administration building, but as they are small in extent and growing in containers, they are not mapped separately. There is no other vegetation within the Site, other than some scattered ruderal plants in windblown drifts of sediment. Therefore, there are no habitats of any ecological importance within the Site.

3.3.2 Rare or protected flora

No rare or protected plants were encountered.

3.3.3 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.

3.4 Protected species

3.4.1 Terrestrial mammals

No field signs of any mammals were observed during the site inspection. As the Site consists entirely of buildings and artificial surfaces it is unsuitable for any protected mammal species, e.g. otter, badger, hedgehog.

3.4.2 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 open habitats such as grasslands.

Potential roost features

An appraisal of potential features for roosting bats was carried out. The primary consideration in this regard is the extent of artificial lighting in the Site and its immediate surroundings. Bats typically avoid areas with extensive lighting, as it exposes them to predation. The Site is lit by floodlights when in operation. It is also located within an urban block that is surrounded by streetlights on all sides – Forbes Lane, Marrowbone Lane, Loreto Road and Our Lady's Road – which would provide a barrier to bats dispersing to and from

the Site. For this reason alone, the Site is considered unsuitable for either roosting or foraging bats.

Notwithstanding the above, external inspections of all buildings were carried out to assess their suitability for roosting bats. The following were noted:

- The administration buildings in the north of the Site are repurposed shipping containers, with an external structure consisting entirely of metal
- A small single-storey building in the north-east of the Site has block walls, a flat bitumen roof and wooden fascia panels
- There are some small warehouses / sheds in the mid-west of the Site, which are constructed entirely of metal
- An open-sided barn-style structure in the south-west of the Site is used for grit storage, which is constructed entirely of metal
- There is a long single-storey building in the south-east of the Site, which has block walls, a flat roof and wooden fascia panels

Due to the lack of potential roost sites in the modern buildings, and the high levels of artificial lighting within and surrounding the Site, it is considered unsuitable for roosting bats.

Potential foraging habitat

Due to the lack of any bat foraging habitats (woodland, open water, etc) and the prevalence of artificial lighting at the site, it is considered unsuitable for foraging or commuting bats.

Evaluation

The Site has Negligible importance for roosting and foraging bats.

3.4.3 Birds

Habitats within the Site are unsuitable for brent geese or any other species associated with SPAs in Dublin Bay; these species are only recorded in amenity grassland that is regularly mowed.

The following species were recorded during the site inspection: feral pigeon, herring gull and black-headed gull. Due to the absence of vegetation it is unlikely that any other species would use the Site on a regular basis. Therefore, the Site is of Negligible importance for bird species.

Gulls often nest on the roofs of buildings in urban areas, and are known to use the roofs of buildings around the Guinness Brewery to the north of the Site. However, no nests were observed on any of the buildings within the Site, and no potential nesting sites were observed. Therefore, the Site is unsuitable for any nesting birds.

3.4.4 *Fish and aquatic fauna*

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

3.4.5 *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 no importance for these taxa.

3.4.6 *Terrestrial invertebrates*

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

3.5 **Potential limitations and information gaps**

The multi-disciplinary site inspection was carried out in July, which is an ideal time for ecological surveys. The Site has negligible ecological value, and no further surveys were considered necessary. Therefore, this assessment has no limitations or information gaps.

3.6 **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	National	WA	No
Buildings and artificial surfaces (BL3)	Negligible	-	No
Ornamental / non-native shrubs (WS3)	Negligible	-	No
Rare / protected flora	N.A.	-	No
Invasive plant species	N.A.	-	No
Terrestrial mammals	Negligible	WA	No
Bats	Negligible	HR, WA	No
Birds	Negligible	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)

4 Evaluation and Recommendations

All ecological features discussed in Section 3 are of Negligible ecological importance, so they do not require further assessment. The proposed development will not have any ecological impacts.

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 4.1, and potential net gain in biodiversity is considered.

4.1 Biodiversity Enhancement and Net Gain

The Site currently consists almost entirely of buildings and artificial surfaces, which are of no ecological value. If biodiversity enhancements can be incorporated into the landscaping proposals for the scheme, it may be possible to achieve a net gain in the biodiversity value of the Site. Suitable measures may include the following:

- Inclusion of a range of native trees and shrubs, including species that provide berries for birds (e.g. hawthorn, rowan)
- Managing grassland areas as meadows, by mowing only once per growing season and removing cuttings. Guidance is provided in the All-Ireland Pollinator Plan
- Provision of bird boxes, including designs suitable for common garden birds (e.g. finches, tits, blackbirds), or species that nest on buildings (swifts, martins, swallows). Swift nesting boxes should be considered for tall buildings (at least 5 m in height). Bat boxes and hedgehog boxes will not be suitable for this Site because the surrounding habitat is unsuitable for these species.
- Creation of a pond or similar semi-natural wetland feature with native fringing vegetation. Ponds may also be suitable for frogs / newts. These measures may be feasible for above-ground SUDS features (e.g. attenuation ponds, swales)
- Incorporating biodiversity features on the roofs of structures including apartment roofs, cycle shelters, sheds etc. Such features should use the site’s soils, and have appropriate long-term maintenance
- Artificial lighting should be avoided near retained habitat features, to ensure that they are suitable for bats and other nocturnal species. Similarly, paths and cycleways should not be located alongside biodiversity features, because the associated infrastructure, human disturbance, vegetation management, lighting, etc can substantially reduce the biodiversity value of these features.

5 Conclusion

As the Site has no baseline ecological value and no ecological impacts will occur, it is not necessary to carry out an Ecological Impact Assessment. This Preliminary Ecological Appraisal may be included in the Part 8 application to demonstrate that ecological features have been considered. Screening for Appropriate Assessment is provided in a separate document.

As noted above, the proposed development will provide a net gain in biodiversity (subject to the landscape proposals), and thus complies with Policy GI 16 of the Dublin City Development Plan.

6 References

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