
Preliminary Ecological Appraisal

Social Housing Bundle 4, Development at Collins Avenue, Whitehall, Dublin 9

19 July 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 document has been prepared by NM Ecology Ltd on behalf of Dublin City Council regarding a proposed residential development at Collins Avenue, Whitehall, Dublin 9. The proposed development will involve the construction of 106 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. There are some designated sites within 5 km of the Site, 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 almost entirely of buildings and artificial surfaces, with some treelines (predominantly non-native trees and shrubs) along the south-western and south-eastern boundaries. All are of Negligible botanical importance, so they pose no constraint to the proposed development. No rare flora or invasive plant species were recorded. A range of native trees and shrubs will be planted as part of the landscaping scheme, as well as some other biodiversity enhancement measures, which are likely to result in a net gain in the biodiversity value of the Site.

A number of existing structures at the Site will be demolished, including a two-storey administration building and a range of workshops, stores and warehouses / sheds. A bat survey was carried out, but no roosting or foraging bats were recorded, so the Site is of Negligible importance for bats.

The Site does not contain any suitable habitat for otters, badgers, hedgehogs or other protected mammals. Some common and widespread bird species were recorded at the Site, but no species of conservation importance. To avoid impacts on nesting birds it is recommended that any tree felling or vegetation clearance works take place outside the nesting / breeding season, or that a pre-clearance survey is carried out.

In summary, we have only identified one important ecological feature at the site, which can be addressed using best-practice mitigation measures. Landscaping proposals are expected to result in a net gain in the biodiversity value of the Site. No further ecological surveys or assessments are required. This document should be included in the planning application to demonstrate due diligence on ecological matters.

Table of Contents

1	Introduction	1
1.1	Assessment brief	1
1.2	Statement of authority	1
2	Methods	1
2.1	Scoping	1
2.2	Data collection and walkover survey	2
2.3	Valuation of ecological features	3
3	The Receiving Environment.....	3
3.1	Environmental setting	3
3.2	Designated sites	4
3.3	Habitats and flora	6
3.4	Protected species	7
3.5	Potential limitations and information gaps.....	9
3.6	Identification of Important Ecological Features.....	9
4	Evaluation and Recommendations	10
4.1	Protection of treeline and nesting birds	10
4.2	Biodiversity Enhancement and Net Gain.....	10
5	Conclusion	11
6	References	12

1 Introduction

1.1 Assessment brief

NM Ecology Ltd was engaged to carry out a Preliminary Ecological Appraisal (PEA) of a proposed development site (hereafter referred to as 'the Site') at the former Collins Avenue Bring Centre in Whitehall, Dublin 9. The proposed development will involve the construction of 106 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, a multi-disciplinary survey was carried out on 15 June 2023, and a bat survey on 5 September 2023.

Bat survey

Survey methods were developed using *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 3rd edition, 2016). It is noted that the 4th edition of the guidance was published in October 2023, but the survey had already been completed by that time, so it was undertaken in accordance with the 3rd edition guidance.

One building of low suitability for roosting bats was identified during an initial inspection of the Site, so an emergence survey was carried out by two surveyors on 5 September 2023. Weather conditions were ideal for bats: air temperatures of 19 °C and no wind or rain.

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 9
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 covers two former depots used by Dublin City Council (DCC). The western section of the Site was used by the DCC Waste Management Division for administration, vehicle storage and temporary storage of waste. A public Bring Centre (recycling) was also located in this area. The eastern section of the Site was used by the DCC

Roads Division for administration, the storage of gritting machines, stockpiles of grit, and other related works.

The majority of the Site is paved with concrete and asphalt. There are a number of buildings, including a two-storey administration building and a range of workshops, stores and warehouses / sheds. There are treelines along the south-western and south-eastern boundaries, which were originally planted to screen the facility from adjoining houses.

The northern boundary of the Site adjoins an industrial / commercial estate and student accommodation, and there are housing estates to the south-west and south-east. The broader surroundings include Dublin City University Campus, schools and sports facilities.

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

A culverted watercourse passes through the Site near the northern boundary. It is understood to be the remains of the River Wad, which formerly arose in Poppintree and reached the coast at Clontarf. The river appears to have been culverted in its entirety, and re-routed to connect to the River Tolka. On this basis it is not considered to be an artificial storm drain rather a natural watercourse.

There are no other watercourses in the vicinity of the Site. The closest is the River Tolka, which is approx. 1.8 km south-west of the Site. The Site has no association with this or any other watercourse.

As the majority of the Site is paved with concrete, rainwater currently drains to a network of storm drains throughout the Site, which discharge to the culvert in the north of the Site. It is understood that the storm drain connects to the River Tolka.

3.2 Designated sites

The Site is not located within or adjacent to any designated sites. A map of designated sites in the surrounding area is provided in Figure 1, and details are provided in Table 2.

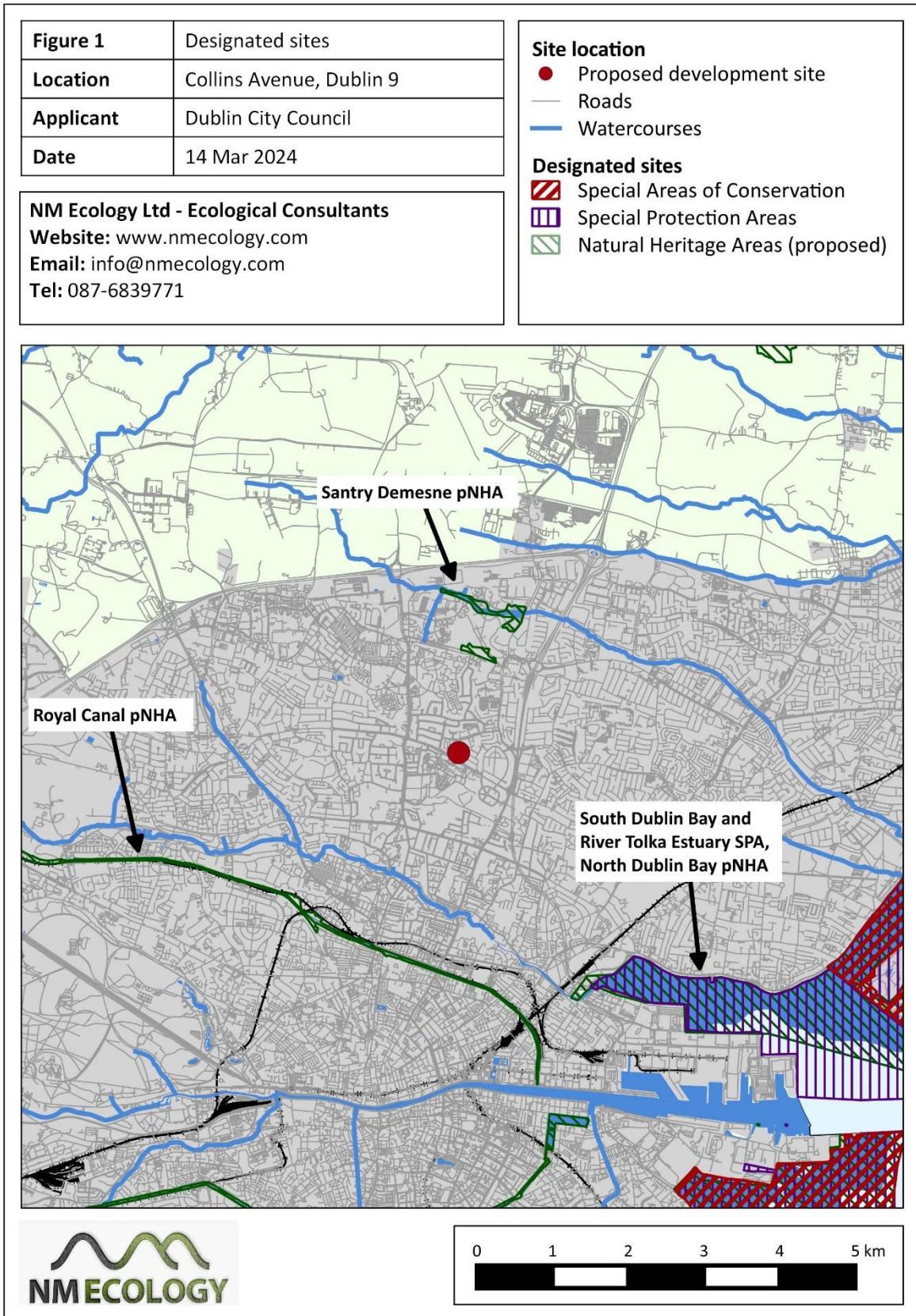


Table 2: Designated sites shown in Figure 1

Site Name	Distance	Reasons for designation
Santry Demesne pNHA (site code 178)	1.3 km north	Former demesne woodland and a protected species (Hairy St John's-wort <i>Hypericum hirsutum</i>)
Royal Canal pNHA (2103)	2.8 km south	Extensive freshwater feature of value to a range of biodiversity, and with value as an ecological corridor
South Dublin Bay and River Tolka Estuary SPA (4024)	3.5 km south-east	Habitats: tidal / 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 migrants), and common tern (breeding populations)

The Site is not within 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.

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 majority of the Site consists of buildings and artificial surfaces (BL3). A two-storey administration building is located in the south of the Site, and there are a range of storage buildings, workshops, shipping containers and other modern structures in the north of the Site. Almost all other external areas have been paved with concrete or asphalt, and are used for the storage of vehicles, waste materials and grit. These areas are of no ecological value.

Treelines (WL2) have been planted in the south of the Site to screen the facility from adjoining dwellings. The south-western treeline consists of dense leyland cypress *Cuprocyparis leylandii* of approx. 7 – 8 m height (pollarded) and 15 m cross-sectional width. A similar patch of dense leyland cypress covers part of the south-eastern boundary at the entrance to the DCC Roads depot. Some areas have dense growth of ivy *Hedera hibernica*, and others have a sparse understorey of elder *Sambucus nigra*, butterfly-bush *Buddleja davidii*, bramble *Rubus fruticosus* ag. and bittersweet *Solanum dulcamara*.

The remainder of the south-eastern treeline consists of tall poplars *Populus* sp. There is a dense understorey of *Viburnum* sp., *Cotoneaster* sp., *Hebe* sp. and *Hypericum* sp. shrubs. Additional ground vegetation includes hedge bindweed *Calystegia sepium*, butterfly-bush, false oat-grass *Arrhenatherum elatius*, ragwort *Jacobaea vulgaris*, cleavers *Galium aparine* and bramble. All treeline habitats are of Negligible ecological importance, as they consist primarily of non-native trees and shrubs.

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 almost entirely of buildings and artificial surfaces and has no significant ground vegetation, 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

External inspections of all buildings were carried out to assess their suitability for roosting bats. The two-storey administration building in the south of the Site has a pitched roof of concrete tiles and plastic soffit / fascia panels. The structure was considered to have low suitability for roosting bats

Other structures on the site include a variety of workshops, storage buildings and warehouses / sheds, all of which are of modern construction. Most buildings have flat roofs of bitumen felt or molded plastic, and warehouses have roofs of sheet metal. All of these buildings were considered to have negligible suitability for roosting bats.

Floodlights were observed throughout the Site. Bats typically avoid areas with high levels of artificial lighting. However, it is understood that the lighting is only used during the operational hours of the facility, so it is not usually necessary during summer months.

Best practice survey guidance from the Bat Conservation Trust (3rd edition, Collins et al 2016) recommend one bat survey for structures of low suitability for bats. The survey was undertaken at sunset (referred to as an emergence survey) on 5 September by two surveyors. The administration building was the primary focus of the survey, but other bat activity within the Site was also noted, and a transect survey of the remainder of the Site was carried out after the emergence survey was complete. Weather conditions were ideal for a bat survey, with an air temperature of 19 °C and no wind or rain.

Results of emergence and activity survey

No bats were recorded roosting in the administration building or any other structures within the Site.

Six passes of Leisler's bat were recorded in the post sunset period, all of which were passing approx. 50 m above the Site. These bats were clearly 'commuting' above the Site, and they did not descend to forage. No other bat activity was recorded anywhere within the Site.

Evaluation

The Site is considered to be of 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, jackdaw, magpie, rook and herring gull. Other common suburban birds (e.g. tits and finches) may use the Site at other times, but species of conservation importance are unlikely to be present. Therefore, the Site is of Negligible importance for bird species.

It is possible that some birds nest within the treelines in the south-west and south-east of the Site. Birds and their nests are protected under the Wildlife Act 1976 (as amended).

3.4.4 Fish and aquatic fauna

There are no natural waterbodies within the Site. The former River Wad is culverted in its entirety so it is unsuitable 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 suburban 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 June 2023 and the bat survey in September 2023. These are ideal times for ecological surveys.

As noted in Section 2.2, the bat survey methods were developed using *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 3rd edition, 2016). The 4th edition of the guidance was published in October 2023, but the survey had already been completed by that time, so it was undertaken in accordance with the 3rd edition guidance. This does not provide any limitation to the survey, as the 3rd edition guidance represented best practice guidance at the time.

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	International	HR	No
Buildings and artificial surfaces (BL3)	Negligible	-	No
Treelines (WL2)	Negligible	-	No
Rare / protected flora	N.A.	-	No
Invasive plant species	N.A.	-	No
Terrestrial mammals	Negligible	WA	No
Bats	Negligible	HR, WA	No
Nesting birds	Negligible	WA	Yes
Fish and aquatic fauna	N.A.	WA	No

Ecological feature	Importance	Legal status	Important feature?
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

The only Important Ecological Features identified in Table 3 is nesting birds. Impacts on nesting birds can be avoided using best practice mitigation; this is discussed in Section 4.1. All other ecological features discussed in Section 3 are considered to be 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 4.2, and potential net gain in biodiversity is considered.

4.1 Protection of treeline and nesting birds

Some trees / shrubs suitable for nesting birds will be felled to accommodate the proposed development. The canopies of these trees could potentially be used by nesting birds. Under Section 22 of the *Wildlife Act 1976* (as amended), it is an offence to kill or injure a protected bird or to disturb their nests. If any of the trees will need to be felled or otherwise modified, it is recommended that it takes place 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.

4.2 Biodiversity Enhancement and Net Gain

As discussed in Section 4.3, all habitats within the Site are currently of Negligible importance. Existing buildings / artificial surfaces and some vegetation will be cleared to make space for the proposed development. Almost all of the treelines along the south-eastern and south-western boundaries will be retained and incorporated into the landscaping scheme for the development; this is primarily due to the visual screening that they provide for adjoining houses.

The landscaping proposals for the scheme will substantially increase natural coverage of the Site. The following measures are shown in the landscape plan:

- New trees will be planted in areas of communal and public open space, and 'native woodland shrub planting' will be planted along most of the northern boundary. The majority of new trees and shrubs will be native species, including some that produce berries (hawthorn, rowan) suitable for over-wintering birds
- A number of small detention basins are provided, which will temporarily hold water during periods of high rainfall. Some wetland species are expected to colonise these areas
- Small sections of wildflower meadow will be included in the public open space
- 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

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 Conclusion

As the Site is of negligible baseline ecological importance and no ecological impacts are currently envisaged, 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 is likely to 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

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, 2013. *Guidelines for Preliminary Ecological Appraisal*. C.I.E.E.M., Hampshire, England.

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.

Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines* (3rd edn). The Bat Conservation Trust, London

Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Poland, J., Clement, E. 2009. *The Vegetation Key to the British Flora*. John Poland and the Botanical Society of the British Isles, Southampton.

Rose, F., 1989. *Grasses, Sedges Rushes and Ferns of the British Isles and northwestern Europe*. Penguin Books Ltd, London.