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# **Preliminary Ecological Appraisal**

Social Housing Bundle 4, Development  
at Stanley Street Depot, Stoneybatter,  
Dublin 7

09 September 2024



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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 a former depot off Stanley Street, Dublin 7. The proposed development will involve the construction of 167 apartments, a creche, 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 entirely of buildings and artificial surfaces, which are of negligible 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.

A number of existing structures at the Site will be demolished, two of which were considered potentially suitable for roosting bats. A bat survey was carried out but no bats were recorded, so the Site is of negligible importance for roosting and foraging 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 (gulls on the roofs of warehouses) it is recommended that site 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 assessment are required. This document should be included in the planning application to demonstrate due diligence on ecological matters.

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## Table of Contents

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Introduction</b> .....                            | <b>1</b>  |
| 1.1      | Assessment brief.....                                | 1         |
| 1.2      | Description of the proposed development.....         | 1         |
| 1.3      | Statement of authority .....                         | 2         |
| <b>2</b> | <b>Methods</b> .....                                 | <b>2</b>  |
| 2.1      | Scoping.....   | 2         |
| 2.2      | Data collection and walkover survey .....            | 2         |
| 2.3      | Valuation of ecological features .....               | 3         |
| <b>3</b> | <b>The Receiving Environment</b> .....               | <b>4</b>  |
| 3.1      | Environmental setting.....                           | 4         |
| 3.2      | Designated sites.....                                | 5         |
| 3.3      | Habitats and flora .....                             | 7         |
| 3.4      | Protected species.....                               | 7         |
| 3.5      | Potential limitations and information gaps .....     | 9         |
| 3.6      | Identification of Important Ecological Features..... | 9         |
| <b>4</b> | <b>Evaluation and Recommendations</b> .....          | <b>10</b> |
| 4.1      | Protection of nesting birds .....                    | 10        |
| 4.2      | Note regarding hazardous waste .....                 | 11        |
| 4.3      | Biodiversity Enhancement and Net Gain .....          | 11        |
| <b>5</b> | <b>Conclusion</b> .....                              | <b>11</b> |
| <b>6</b> | <b>References</b> .....                              | <b>12</b> |

## **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 Stanley Street, Dublin 7. 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 Description of the proposed development**

The proposed development will consist of apartment buildings and duplex units, comprising a total of 167 residential units and a creche. Road access will be from Stanley Street and Grangegorman Lower Road and internal roads and parking areas will be constructed. Communal open space will be provided for each apartment building, and public open space in the south-west of the Site.

Soil samples were taken at the Site as part of a Waste Characterisation Assessment (provided elsewhere in the project documentation). A number of samples were classified as hazardous for Total Petroleum Hydrocarbons (TPH) concentrations. These hazardous materials will be removed during the construction of the proposed development and disposed of as hazardous waste.

Foul water will be discharged to a local authority foul sewer 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 (509 Population Equivalent) will represent 0.021% 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 and attenuation tank, and discharged at a controlled rate to a local authority storm drain. The system will include an oil and hydrocarbon interceptor.

### **1.3 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](http://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 22 August 2023.

#### Bat survey

Survey methods were developed using *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 3<sup>rd</sup> edition, 2016). It is noted that the 4<sup>th</sup> 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 3<sup>rd</sup> edition guidance.

Two buildings of low suitability for roosting bats were identified during an initial inspection of the Site, and an emergence survey was carried out by three surveyors on 22 August 2023. Weather conditions were ideal for bats: air temperatures of 16 °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 7               |
| 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 Site covers a former depot used by Dublin Fire Brigade for the storage and maintenance of vehicles. There are a number of warehouses used for vehicle maintenance and storage, predominantly constructed of corrugated metal panels. There is also a two-storey, flat-roofed administration building in the east of the Site, an older two-storey building in the north-west of the Site which is partly derelict, and a single-storey, pitched-roof masonry building in the south-east of the Site. All other areas are paved in concrete and / or asphalt. The only vegetation within the Site is within a small courtyard in the administration building.

The surroundings are urban in character, and include apartment buildings and commercial units. Stanhope Street Primary School is located to the north-west, and the Grangegorman campus of Technical University Dublin to the north.

#### 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. The closest is the River Liffey, which is approx. 0.5 km south of the Site. The Site has no association with this or any other watercourse.

All rainwater on the Site currently drains to a network of storm drains, which discharge to a public storm drain on Grangegorman Lower Road to the east of the Site.

## 3.2 Designated sites

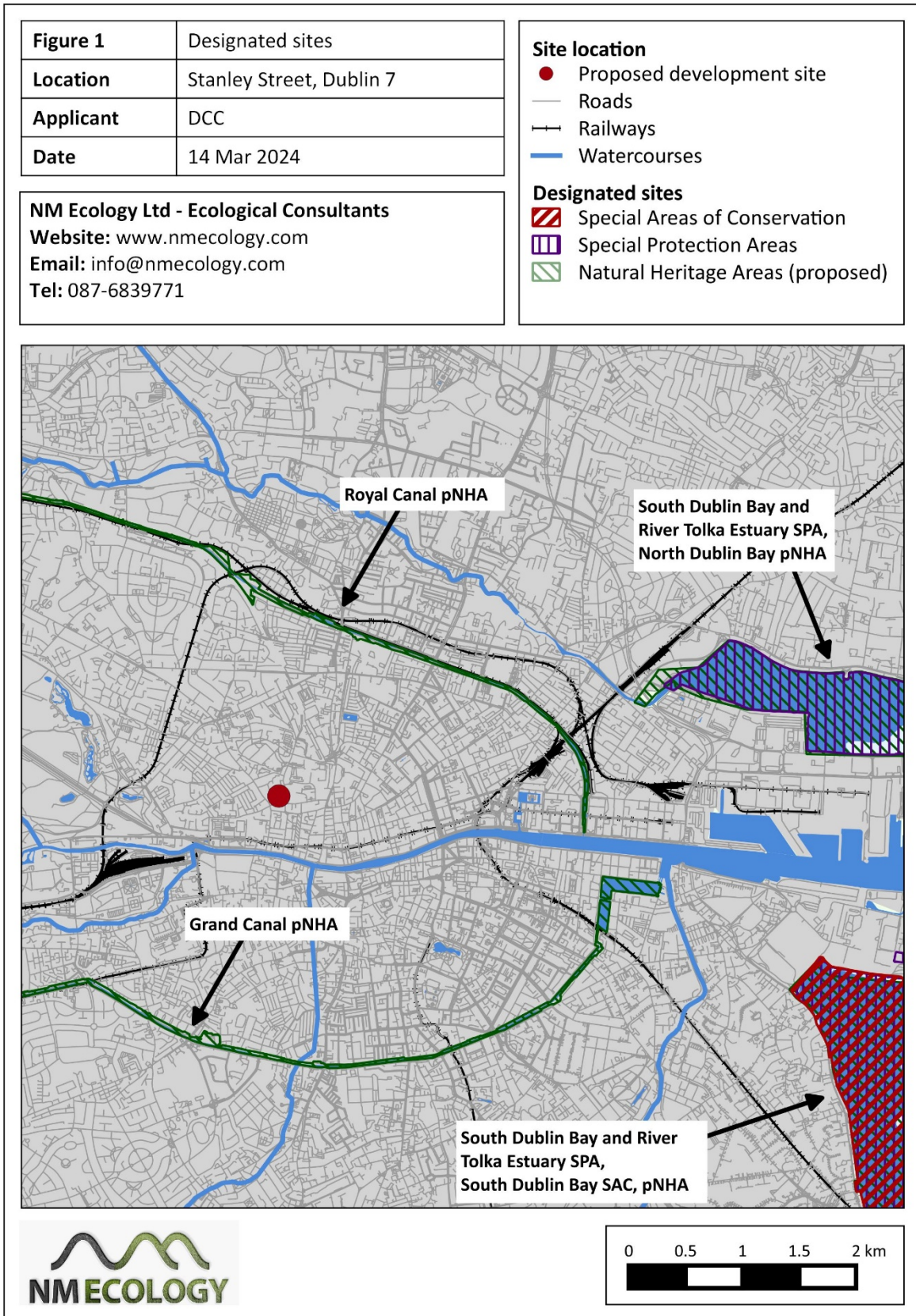
The Site is not located within or adjacent to any designated sites. A map of designated sites in the surrounding area is provided in Figure 1, and details are provided in Table 2.

**Table 2: Designated sites shown in Figure 1**

| Site Name   | Distance          | Reasons for designation   |
|---|-------------------|---|
| Royal Canal pNHA (site code 2103)                   | 1.5 km north      | Extensive freshwater feature of value to a range of biodiversity, and with value as an ecological corridor  |
| Grand Canal pNHA (2104)                             | 2.2 km south      | Extensive freshwater feature of value to a range of biodiversity, and with value as an ecological corridor  |
| North Dublin Bay pNHA (206)                         | 3.2 km east       | None provided. Assumed to be the same as the <i>South Dublin Bay and River Tolka Estuary SPA</i>  |
| South Dublin Bay and River Tolka Estuary SPA (4024) | 3.5 km east       | <b>Habitats:</b> tidal / coastal wetlands<br><b>Special conservation interests:</b> 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) |
| South Dublin Bay SAC, pNHA (210)                    | 4.8 km south-east | <b>Annex I habitats:</b> inter-tidal mudflats / sandflats<br><b>Annex II species:</b> none  |

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 entire Site consists of buildings and artificial surfaces (BL3). There are a number of warehouses used for vehicle maintenance and storage, and smaller buildings used for administration and staff welfare. All other areas are paved in concrete and / or asphalt.

The only green area is within a small courtyard in the administration building. It was not accessible at the time of survey, but some trees and non-native shrubs were observed. This area is man-made, of small extent, and isolated from the surrounding area. It would most accurately be described as ornamental / non-native shrubs (WS3), but for the purpose of this assessment it can be considered part of the buildings and artificial surfaces habitat.

#### 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 and has no 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 majority are warehouses used for vehicle maintenance and storage, with metal

frames clad in panels of corrugated metal, asbestos and / or transparent plastic. All of these structures are of negligible suitability for roosting bats.

Other structures of note are:

- A two-storey administration building located in the east of the Site. It has a flat roof of bitumen, walls of concrete blocks, and wooden soffit / fascia panels. It is considered to have negligible suitability for roosting bats.
- An older two-storey building located in the north-west of the Site. It has a sloped roof of corrugated metal / asbestos, part of which has collapsed and / or been engulfed by ivy. It is considered to be of low suitability for roosting bats
- A single-storey building is located in the south-east of the Site, and used for staff welfare facilities. It has red-brick walls and a pitched roof of slate. It is considered to have low suitability for roosting bats.

It is important to note the extent of artificial lighting within and surrounding the Site, as bats avoid brightly-lit areas. The majority of the Site was illuminated during the bat survey in August 2023, including the buildings described above. This reduces their suitability for roosting bats, and has been taken into account in the ratings above. The roads surrounding the Site also have streetlighting.

Best practice survey guidance from the Bat Conservation Trust (3<sup>rd</sup> 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 22 August by three surveyors. The buildings in the north-west and south-east of the Site were the primary focuses of the survey, but a general activity 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 16 °C and no wind or rain.

#### Results of emergence and activity survey

No bat activity was recorded at any time during the survey. This is almost certainly due to extensive artificial lighting within and surrounding 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, 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 were observed to be nesting on the roofs of one of the warehouses within the Site, and on some buildings just outside the south-eastern boundary of the Site; this is relatively common throughout Dublin City Centre. 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, 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 June 2023 and the bat survey in August 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, 3<sup>rd</sup> edition, 2016). The 4<sup>th</sup> 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 3<sup>rd</sup> edition guidance. This does not provide any limitation to the survey, as the 3<sup>rd</sup> 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                 |
| 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                 |
| Nesting birds (gulls)                   | Negligible    | WA           | Yes                |
| 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

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. The risk of impacts from hazardous waste is ruled out in Section 4.2. 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 nesting birds

Gulls were observed nesting on the roof of one of the warehouses in the south of the Site, and could potentially also use other buildings. 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. It is recommended that the buildings are demolished 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 or not any breeding birds are present. If any are



encountered, demolition may be delayed until the breeding attempt has been completed, i.e. after chicks have fledged and a nest has been abandoned.

#### **4.2 Note regarding hazardous waste**

As noted in Section 1.2, some of the soil samples taken from the Site were classified as hazardous for Total Petroleum Hydrocarbons (TPH) concentrations. These hazardous materials will be removed during the construction of the proposed development and disposed of as hazardous waste. As there are no natural habitats within the Site, the hazardous waste will have no ecological impacts within the Site. There are no connections to any watercourses (Section 3.1), so there is also no risk that hazardous waste will have any impact on ecological features outside the Site.

#### **4.3 Biodiversity Enhancement and Net Gain**

As discussed in Section 3, all habitats within the Site are currently of Negligible importance. Existing buildings and artificial surfaces will be cleared to make space for the proposed development.

The landscaping proposals for the scheme will create green areas within 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 detention basin will be created in the north-west of the Site, which will temporarily hold water during periods of high rainfall. Some wetland plants are expected to colonise this area
- Bird boxes will be provided, including swift nesting boxes on a tall building in the north of the Site, and a range of designs suitable for common garden birds (e.g. finches, tits, blackbirds) in the garden of the creche

Overall, the proposed landscaping scheme will result in a significant 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.

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