



# **Appropriate Assessment: Stage 1 Screening Report**

## **Proposed Large-Scale Residential Development at LDA Wilton, Sarsfield Road, Cork**

On behalf of  
**The Land Development Agency  
(‘LDA’)**





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**Proposed Large-Scale Residential Development at LDA Wilton, Sarsfield Road,**  
**Cork**  
**The Land Development Agency**

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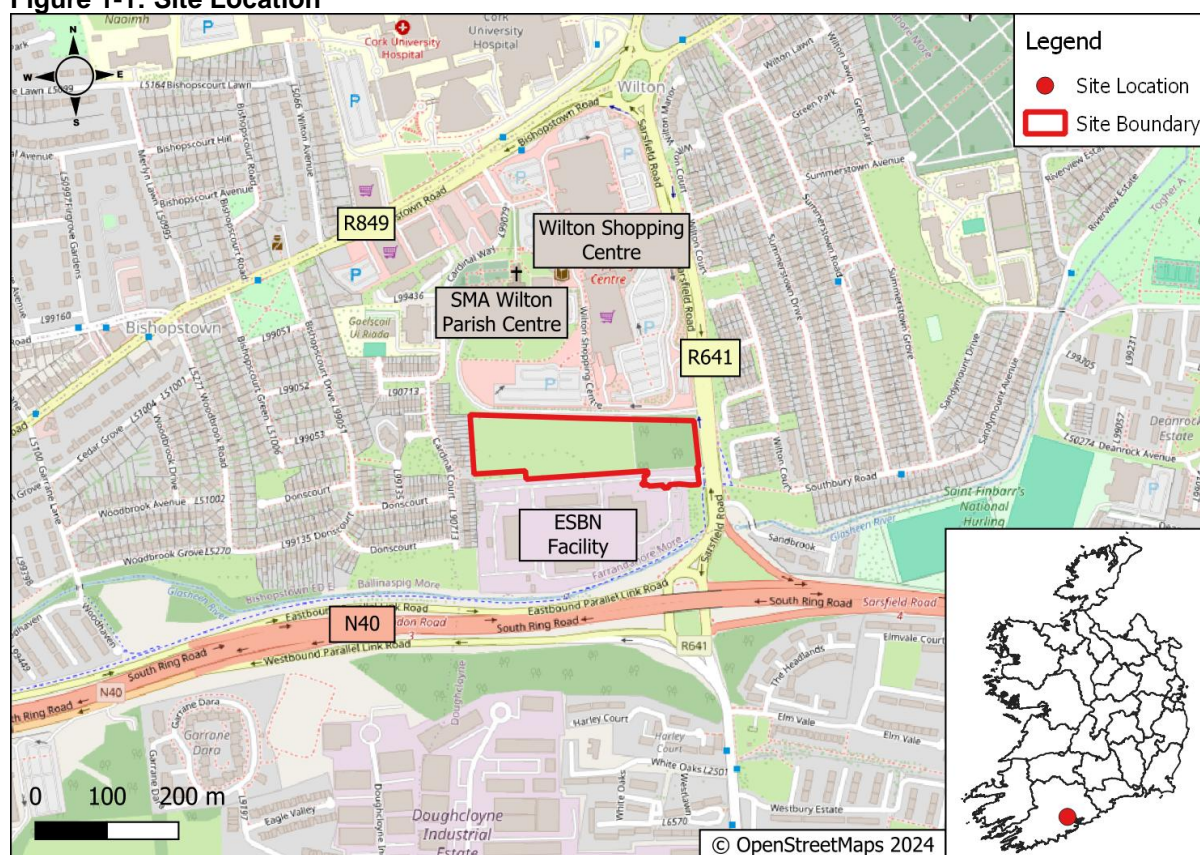
### **Appendix A – Bird Report**

# 1 INTRODUCTION

Malone O'Regan Environmental ('MOR Environmental') was commissioned to undertake an Appropriate Assessment Screening Report ('AA') on behalf of the Land Development Agency ('LDA') ('the Applicant') to assess the potential adverse effects, if any, of the proposed Large Residential Development ('the Proposed Development') at Farrandahadore More, Sarsfield Road, Wilton, Cork (OS ITM Reference X: 564999 Y:569684) on nearby sites with European conservation designations (i.e., Natura 2000 sites).

The Proposed Development will be located on a site that is circa ('ca.') 2.61 hectares ('ha') in size and is located on a site adjacent to Sarsfield Rd., Wilton, Cork, ca. 3km southwest of Cork City Centre and is shown in Figure 1-1 ('the Site').

**Figure 1-1: Site Location**



The purpose of this assessment was to determine the appropriateness, or otherwise, of the proposed works in the context of the conservation objectives of European sites through the research and interpretation of the best scientific, geographic and engineering knowledge. This report seeks to determine whether the Proposed Development will, on its own or in combination with other plans / projects have a significant effect on the integrity of European sites within a defined zone of influence of the Site. This AA has been prepared without considering measures intended to avoid or reduce an impact on a European site.

## 1.1 Background

The zoning objective stated in the Cork City Development Plan is 'Sustainable Residential Neighbourhoods' [1]. Given the zoning objective applicable to the Site, it is considered that the Proposed Development is acceptable in principle.

## 1.2 Statement of Authority

This report was reviewed by Mr. Henry Tennyson. Henry is a qualifying member of the Chartered Institute of Ecology and Environmental Management ('CIEEM') with over 3 years' experience working in the environmental consultancy sector. As part of his role, Henry regularly conducts ornithological surveys and assessments for various projects across Ireland and has experience in conducting surveys in accordance with Best Practice Guidelines

This report was approved by Mr. Dyfrig Hubble, Associate Director - Ecologist. Dyfrig is a full member of the Chartered Institute of Ecology and Environmental Management ('CIEEM'). Dyfrig has over 18 years' experience working in the ecological consultancy sector, including habitat surveys and appraisals and specialist protected species surveys in support of Appropriate Assessments.

## 1.3 Regulatory Context

The following guidance documents were adhered to for the preparation of this AA report:

- OPR Practice Note PN01, *Appropriate Assessment for Screening for Development Management*, The Office of the Planning Regulator [2];
- *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, European Commission [3];
- *Guidelines for Ecological Impact Assessment in the UK and Ireland*, Chartered Institute of Ecology and Environmental Management [4];
- *Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC*, European Commission [5];
- *Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities*, DoEGLH [6]; and,
- *Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10*, DoEGLH [7].

This AA was prepared in accordance with and in compliance with the following legislation:

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna better known as "The Habitats Directive". This provides the framework for the legal protection of habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. The Habitats Directive was transposed into Irish law by the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 / 2011) (as amended) [8].

For completeness, the Planning and Development Act 2000 (as amended) states "*European site*" means:

- a. A candidate site of Community Importance ('cSCI');
- b. A site of Community Importance ('SCI');
- c. A Special Area of Conservation ('SAC');
- d. A candidate Special Area of Conservation ('cSAC'); or,
- e. A Special Protection Area ('SPA').

These are Special Areas of Conservation ('SACs') designated under the Habitats Directive and Special Protection Areas ('SPAs') designated under the Conservation of Wild Birds

Directive (79/409/EEC as amended 2009/149/EC) (better known as “The Birds Directive”). The Birds Directive was also transposed into Irish law through the Planning and Development Act 2000 (as amended) and S.I 477 / 2011 [8].

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment.

*“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public”.*

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. First, the project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the planning stage and designing the project in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, it must be rejected unless it follows the process established under Article 6(4). If the project is required for imperative reasons of overriding public interest (‘IROPI test’) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effects.

## **1.4 Stages of Appropriate Assessment**

There are four distinct stages to undertaking an AA as outlined in current European Union (‘EU’) and Department of Environment, Heritage and Local Government (‘DoEHLG’) guidance:

### **Stage 1: Screening**

This process identifies the potential impacts of a plan or project on a Natura site, either alone or in combination with other plans and projects and considers whether these impacts are likely to be significant. If potentially significant impacts are identified, the plan or project cannot be screened out and must proceed to Stage 2.

### **Stage 2: Appropriate Assessment**

Where potentially significant impacts are identified, an assessment of the potential mitigation of those impacts is required; this stage considers the appropriateness of those mitigation measures in the context of maintaining the integrity of the Natura 2000 sites. If potential significant impacts cannot be eliminated with appropriate mitigation measures, the assessment must proceed to Stage 3.

### **Stage 3: Assessment of Alternatives Solutions**

This process examines alternative ways to achieve the objectives of the plan or project that avoid adverse impacts on the integrity of the Natura 2000 site if mitigation measures are deemed insufficient.

### **Stage 4: Imperative Reasons of Overriding Public Interest (‘IROPI’)**

Assessment where no alternative solution exists for a plan or project and where adverse impacts remain. This includes an assessment of compensatory measures, where in the case of projects or plans, can be considered necessary for IROPI.

## 2 SCREENING FOR APPROPRIATE ASSESSMENT

Screening determines whether Appropriate Assessment is necessary by examining:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with, or necessary to, the management of a European site; and,
2. Whether the project will have a potentially significant effect on a European site, either alone or in combination with other projects or plans, in view of the site's conservation objectives.

Screening involves the following:

- i) Description of a plan or project;
- ii) Identification of relevant European sites and compilation of information on their qualifying interests and conservation objectives;
- iii) Assessment of likely effects – direct, indirect, and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary; and,
- iv) Screening Statement with conclusions.

### 2.1 Methodology

#### 2.1.1 Determining Zone of Influence

The starting point for this assessment was to determine the Zone of Influence. The Zone of Influence ('Zoi') comprises of the area in which the Proposed Development may potentially affect the conservation objectives (or qualifying interests) of a European site.

Guidance in Appropriate Assessment of plans and projects in Ireland notes that a distance of 15km is recommended for the identification of relevant European sites [6]. However, guidance from the National Parks and Wildlife Services ('NPWS') recommends that the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects (cumulative) [7]. For some projects, the distance could be greater than 15km, and in some cases, less than 100m.

Definition of the zone of influence for the proposed works includes evaluating the following:

- Identification of the European sites that are situated within, in close vicinity or downstream within the zone of influence of the Proposed Development;
- Identification of the designated habitats and species and Conservation Objectives for the identified European sites;
- Identification of the environmental conditions that stabilise and increase the qualifying interests of the Natura sites towards favourable conservation status;
- Identification of the threats / impacts – actual or potential that could negatively impact the conservation objectives for the European sites;
- Identifying the activities of the proposed works that could give rise to significant adverse impacts; and,
- Identification of other plans or projects, for which in-combination impacts would likely have significant adverse effects.

## 2.1.2 Source-Pathway-Receptor Model

European sites are only at risk from significant effects where a source-pathway-receptor link exists between a Proposed Development and European sites. This can take the form of a direct impact (e.g., where the Proposed Development is located within/in close vicinity to the boundary of a European site) or an indirect impact, where impacts occur outside of the European site but affect ecological receptors within (e.g., impacts to water quality that can affect estuarine habitats at a distance from the impact source).

The likely effects of the Proposed Development on any European site has been assessed using a source-pathway-receptor model. A source-pathway-receptor model is a standard tool used in environmental assessment [9, 10]. The model comprises of:

- *A source*: any potential impacts from the Proposed Development, e.g. the runoff of sediment / construction pollution;
- *A pathway*: the means or route by which a source can affect the ecological receptor; and,
- *A receptor*: the qualifying interests and/or special conservation interests of the European sites.

In order to establish the Zone of Influence of the Proposed Development works, the likely key environmental impacts/changes associated with the Proposed Development were determined regarding the project characteristics set out in Section 3.3 of this report. Zone of Influence for various potential impact pathways are discussed in Section 4.1.

## 2.1.3 Desk Based Studies

A desk-based review of information sources was completed, which included the following sources of information:

- Review of aerial maps of the Site and surrounding area;
- The National Parks and Wildlife Service ('NPWS') website was consulted with regard to the most up to date detail on conservation objectives for the European sites relevant to this assessment [11];
- The National Biodiversity Data Centre ('NBDC') website was consulted with regard to species distributions [12];
- The Environmental Protection Agency ('EPA') Maps website was consulted to obtain details about watercourses in the vicinity of the Site [13];
- The Cork City Council ('CCC') Planning Portal to obtain details about existing / proposed developments in the vicinity of the Site [14]; and,
- The Department of Housing, Local Government and Heritage's planning portal – the National Planning Application Database was reviewed to obtain details about existing / proposed developments in the vicinity of the Site [15].

## 2.1.4 Field Survey

### 2.1.4.1 Habitat Survey

A Site walkover was undertaken on 7<sup>th</sup> September 2023 by a suitably qualified and experienced MOR Environmental ecologist to assess extent and the quality of habitats present on the Site and to identify any potential ecological receptors associated with the European sites.

The habitat survey was undertaken for the Proposed Development utilising the Heritage Council's – '*A Guide to Habitats in Ireland*' [16]. This is the standard habitat classification system used in Ireland and includes both a desk based and field-based assessment.

The assessment was also extended to identify the potential for these habitats to support other features of nature conservation importance, such as species afforded legal protection under European legislation.

Additional updated habitat surveys were also undertaken on and 27<sup>th</sup> May 2024 and 27<sup>th</sup> August 2024 to ensure that all survey data remained up to date.

#### **2.1.4.2 Protected / Notable Species Surveys**

During the initial survey, the Site was assessed for its potential to support important assemblages of birds of rare or notable species which have been designated as conservation interest species for European sites within 15km of the Site. Surveys aimed to identify and examine areas where designated birds might be present.

Following the desk-based assessment and initial habitat assessment, it was deemed necessary to undertake wintering and breeding bird surveys.

##### **Wintering Bird Surveys**

Three wintering bird surveys were undertaken by a suitably qualified and experienced MOR Environmental ecologist. These surveys were conducted on 10<sup>th</sup> November 2023, 20<sup>th</sup> December 2023 and 18<sup>th</sup> January 2024. The surveys included a vantage point ('VP') survey and transect survey.

These surveys were conducted in adherence with the Winter Farmland Bird Survey methodology provided by the British Trust for Ornithology ('BTO') [17] and the Wintering and Migratory Wildfowl (especially geese and swans) survey methodology provided by the Scottish Natural Heritage ('SNH') [18].

The surveys were timed to coincide with the high tide in Cork Harbour, or as close to high tide as possible in suitable weather conditions and during daylight hours, in order to ascertain whether or not wetland bird species utilising the nearby SPA utilise the proposed site for foraging or roosting purposes when favourable habitats (such as mudflats) are inaccessible.

Full details of the methodology used for these surveys are outlined in Appendix A – Bird Report.

##### **Breeding Bird Surveys**

Three breeding bird transect surveys were undertaken on 2<sup>nd</sup> May, 22<sup>nd</sup> May and 17<sup>th</sup> June 2024 by a suitably qualified and experienced MOR ecologist.

These breeding bird surveys were conducted in line with the methodology described in BTO - *A Field Guide to Monitoring Nests* [19] and Common Bird Census in *Bird Monitoring Methods* [20].

All birds were recorded through sight and sound. Suitable vegetation onsite was examined for the presence of nests. During the survey, the behavioural activity of the recorded birds was noted using the BTO breeding status codes [2]. Birds that displayed non-territorial behaviours were recorded as well (i.e., birds that were foraging and not calling, birds that were loafing). Birds were then classified as non-breeding, possibly breeding and confirmed breeding based on the behaviours exhibited.

Full details of the methodology used for these surveys are outlined in Appendix A – Bird Report.

## **Invasive Species**

The Site was also assessed for the presence of any noxious / invasive species such as Japanese knotweed (*Fallopia japonica*) and any other invasive species within the Site.

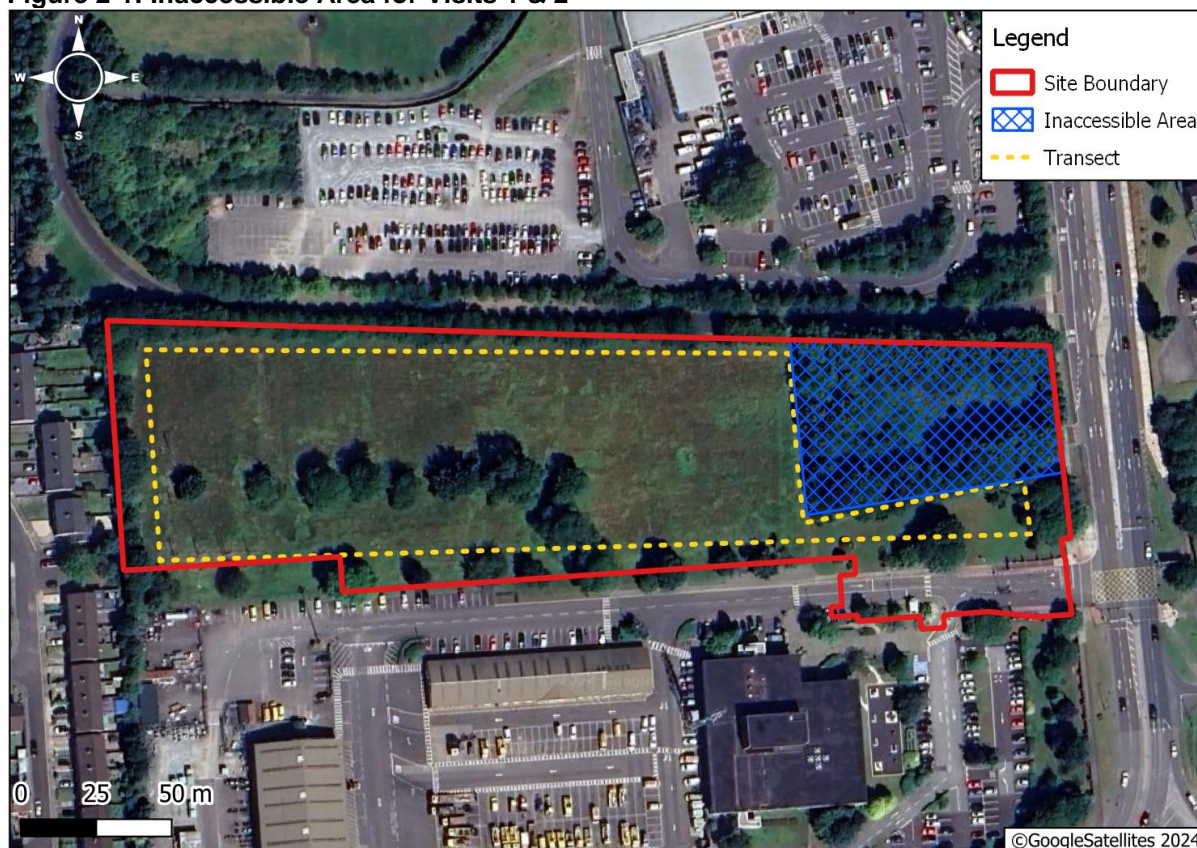
## **Other Species**

In addition, as part of the overall ecological assessment for the proposed site, an assessment was carried out for the potential of the Proposed Development to support any other species considered to be of value for biodiversity, including those that were identified as occurring locally by the desktop study. This information was used as part of the AA to inform the assessment of potential adverse effects on both Annex I Species and Habitats identified as part of the study

### **2.1.4.3 Survey Limitations**

During the breeding bird surveys, the area of scrub was inaccessible during the first and second breeding bird surveys due to dense vegetation, and therefore, only the outskirts of the scrub were surveyed. Prior to the third and final breeding bird survey, an area of scrub was cleared in the northeast of the Site to allow access for ground investigation works to take place on the Site. In advance of clearance works, the local NPWS officer was consulted, and it was agreed that under strict supervision, the area could be partially cleared to allow access. Please see Figure 2-1 for location. Additionally, due to access restrictions on the Site, surveys were not undertaken as close to sunrise as possible but instead as close to the opening of the Electricity Supply Board Networks ('ESBN') site as possible. No other survey limitations were encountered.

**Figure 2-1: Inaccessible Area for Visits 1 & 2**



### 3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

#### 3.1 Site Context and Description

The Site is situated on a ca. 2.61 ha site, located ca. 3km southwest of Cork City. The Site is accessed via the existing ESB Networks facility entrance and a gate, situated along the regional road R641 also known as Sarsfield Road that connects to the N40 'Cork South Ring Road'.

The Site is comprised of an area of amenity grassland and a section of scrub in the northeast corner. A hedgerow / treeline borders the north and west of the Site, along with a section of scrub.

The Site is located in the centre of Wilton, to the west of Sarsfield Road (R641). The surrounding area is largely made up of residential, commercial and institutional uses. The Site is bordered to the north by the access road to the SMA Wilton Parish Centre and its associated buildings and lands. Wilton Shopping Centre and car park is located immediately to the east of the SMA Wilton Parish Centre and its associated buildings. To the west of the Site and east of Sarsfield Road comprises large areas of residential premises, both semi-detached and terraced. The Site is bound to the south by the Wilton Electricity Supply Board Networks ('ESBN') Facility. See Figure 3-1 for context.

**Figure 3-1: Site Context**



#### 3.2 Watercourses within the Vicinity of the Site

The Site is situated within the Lee, Cork Harbour and Youghal Bay Water Framework Directive ('WFD') Catchment [Catchment\_ID: 19] and the Glasheen [Corkcity]\_SC\_010 subcatchment [Subcatchment\_ID: 19\_17] [13].

As per EPA Maps, there is one watercourse, the Glasheen (Cork City) Stream of note, that is within close proximity to the Site.

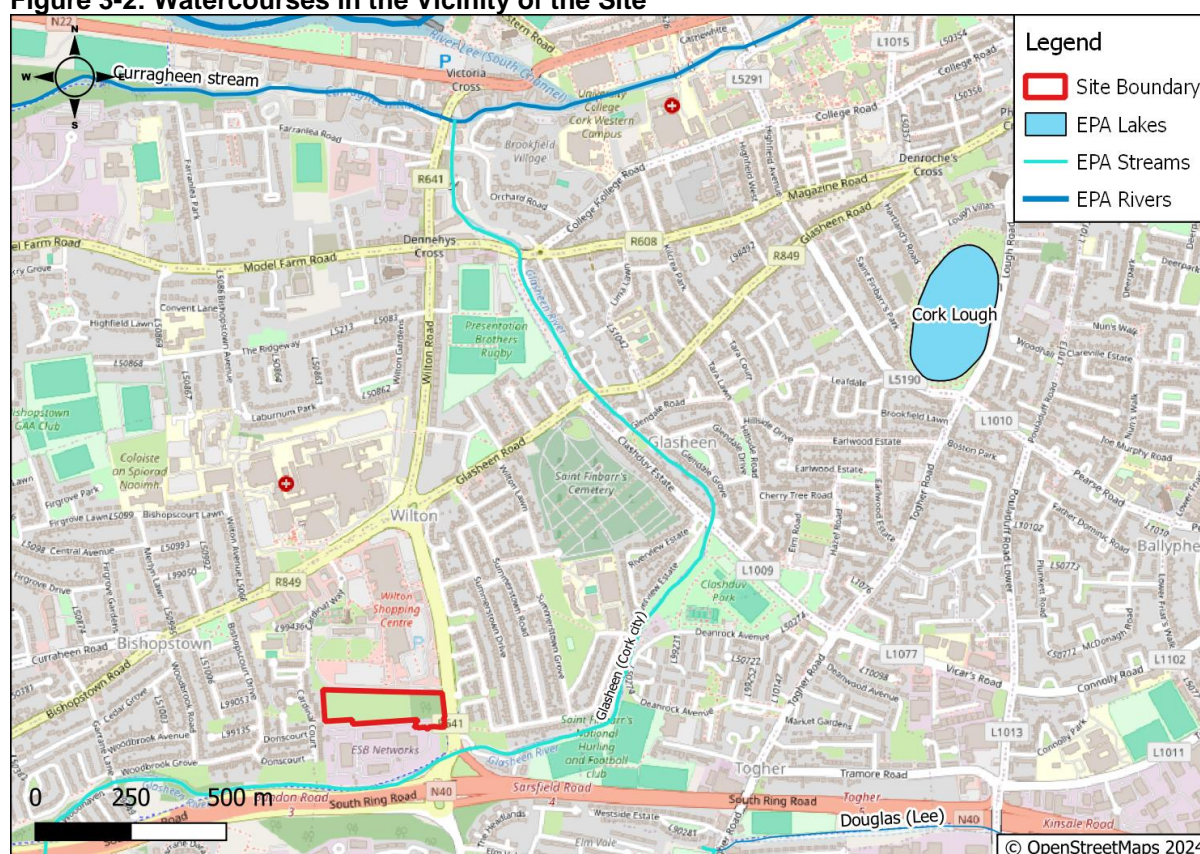
## 1. Glasheen (Cork City) Stream

The Glasheen (Cork City) stream is located ca. 75m to the south of the Site, at its closest point. This stream drains in an eastern/northern direction and drains into the Glasheen (Cork City) River, ca. 2.3km upstream of the Site. The Glasheen (Cork City) river flows in an eastern direction into the Lee (Cork) Estuary Upper and Lower, which forms part of the Cork Harbour SPA.

Under the Water Framework Directive (WFD) 2000/60/EC, as amended, the EPA classifies the status and the risk of not achieving good water quality status for all waterbodies in Ireland [13]. According to the WFD 2016-2021 monitoring events, the most up-to-date data at the time of writing this report, the water quality within the Glasheen (Cork City) stream river are considered to be 'Poor,' and the status of these features are considered 'At risk' [13]. The water quality status within the Lee (Cork) Estuary Upper and Lower are considered to be 'Moderate' and these water features are considered to be 'At risk'.

The location of the key surface water features in the vicinity of the Site are illustrated in Figure 3-2 below.

**Figure 3-2: Watercourses in the Vicinity of the Site**



### 3.2.1 Drainage Ditches

The Site walkover did not identify any drainage ditches or any other surface water features onsite. No natural or existing hydrological link to the Glasheen Stream or any other watercourse in the surrounding area was identified. Therefore, no direct impact pathways were identified.

As per EPA Flood Maps, the Site is not benefitted by any arterial drainage scheme or drainage district [21].

### 3.3 Proposed Development

The Proposed Development will consist of the following:

*'The Land Development Agency (LDA) intends to apply to Cork City Council for permission for a Large Residential Development with a total application site area of ca. 2.61ha, on lands adjoining the ESB Networks DAC Office, at Farrandahadore More, Sarsfield Road, Wilton, Cork City. The development will provide 348 no. residential units and a 156 sqm childcare facility, revised access arrangements to Sarsfield Road and all associated development above and below ground.'*

Full details of the above Proposed Development can be found in the Planners Report submitted as part of this planning application.

#### 3.3.1 Drainage

##### Surface Water Drainage

The surface water sewer system serving the Proposed Development will consist of a network of surface water drains operated by gravity flow and attenuation tanks. The surface water drainage system will connect to existing combined sewers to the east of the Site. The combined sewer system to the Site will connect to an existing 600mm diameter surface water pipe located below Sarsfield Road, which flows south before being discharged into Glasheen River.

Prior to entering into the existing drainage system to the east of the Site, the surface water drainage will a series of attenuation tanks, hydrobrakes and oil interceptors.

Full details on the surface water drainage, including proposed Sustainable Urban Drainage Systems ('SuDS') strategies, flow rates and bioretention areas, can be found in the Infrastructure Report submitted as part of the planning application.

##### Foul Water

The foul sewer system serving the Proposed Development will operate by gravity flow. The foul network will be comprised of 150mm, 225mm and 300mm diameter SN8 pipework and will be designed for a minimum velocity of 0.75m/s (self-cleansing) and maximum peak velocity of 2.5m/s.

It is proposed to connect the foul sewer system to the existing Irish Water network at an existing manhole on the 225mm foul sewer at Sarsfield Road and to upgrade the existing sewer from 225mm to 300mm downstream of this until it reaches the 525mm diameter combined sewer, ca. 12m downstream.

The foul network will be designed and installed according to Uisce Eireann's current Code of Practice for Wastewater Infrastructure.

The Infrastructure Report submitted as part of as part of the planning application provides full details on the foul sewer system.

#### 3.3.2 Site Access

Vehicular access to the Site will be formed via a new priority T-junction with the existing access road to the ESB Networks facility to the southeast. The existing access road is served via an existing signalised junction at Sarsfield Road. It is proposed to retain the existing signalised junction arrangement at Sarsfield Road and upgrade a section of the existing ESB access road, to rationalise traffic movements between the proposed development and the existing ESB networks facility.

Additionally, pedestrian and cyclist access is proposed via separate entrances onto Sarsfield Road, in order to segregate vulnerable road users from vehicular traffic, and to provide direct linkages to the existing pedestrian and cycle network on Sarsfield Road.

### **3.3.3 Landscaping**

A landscape strategy report and plan has been prepared by Park Hood Chartered Landscape Architects and will be submitted as part of the planning application.

## **3.4 Construction Procedures**

During the construction phase, the methods of working will comply with all relevant legislation and best practice guidelines to reduce the adverse environmental effects of the works. Although construction phase adverse effects are generally of a short-term duration and are localised in nature, the adverse effects will be reduced as far as practicable through compliance with current construction industry guidelines.

A Construction Environmental Management Plan ('CEMP') will be prepared by the appointed contractor and will be submitted to the planning authority in advance of works commencing at the Site. The following guidance will be referred to and will be followed during the construction phase of the Proposed Development to prevent water pollution that may occur within the area:

- C811 - Environmental Good Practice on Site (5<sup>th</sup> edition) [22].

### **3.4.1 Construction Timeline**

The timeline will be developed in accordance with the phasing plan submitted as part of this application.

Working hours will generally be restricted to between 08.00 – 18.00 hours Monday to Friday inclusive and between 08:00-17.00 hours on Saturdays. Construction work will not be permitted on Sundays, public holidays or at night-time except where safety concerns necessitate it or if agreed in advance with the Planning Authority.

## **3.5 Monitoring Works**

A suitably qualified and experienced Ecological Clerk of Works ('ECow') will inspect the Site in advance of works commencing.

## 4 IDENTIFICATION OF EUROPEAN SITES

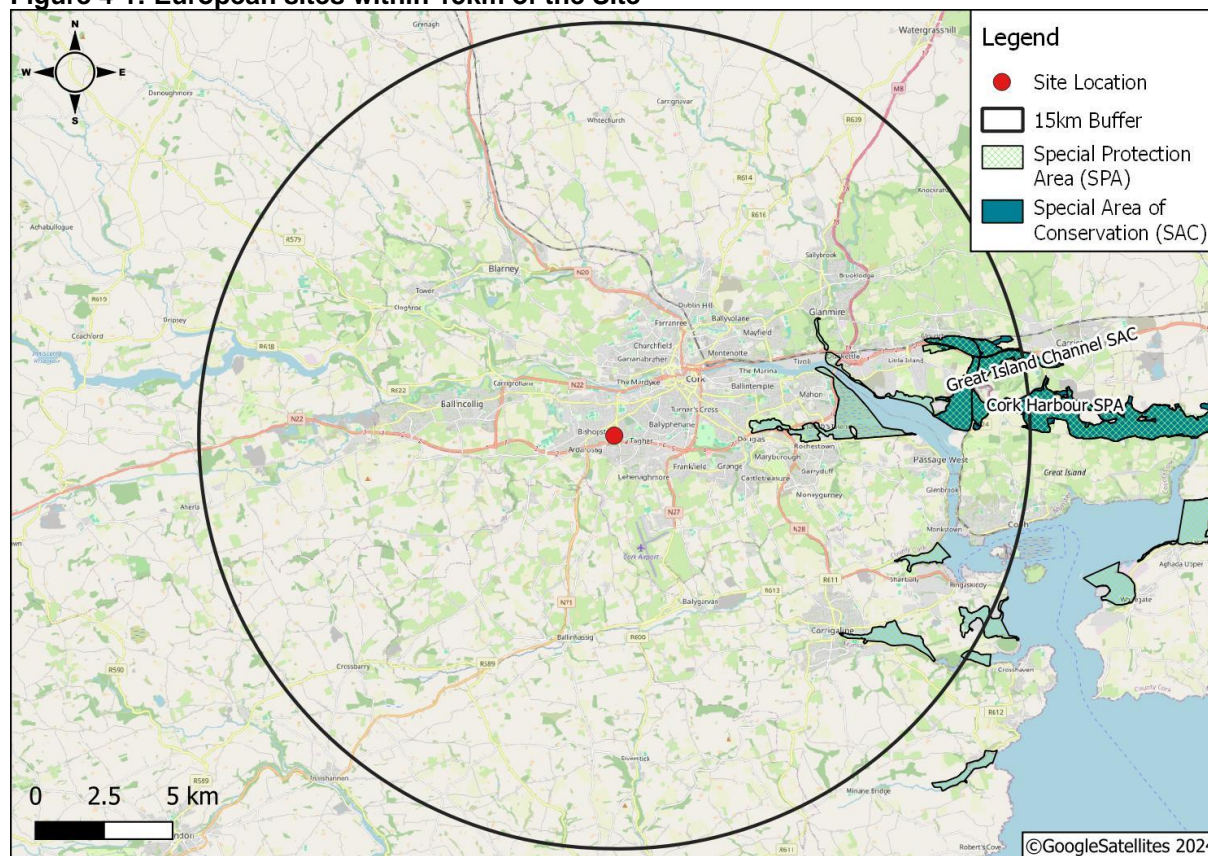
In accordance with the European Commission Methodological Guidance [23] a list of European sites that can be potentially affected by the Proposed Development has been compiled. Guidance for Planning Authorities prepared by the Department of Environment Heritage and Local Government [6] states that defining the likely zone of impact for the screening and the approach used will depend on the nature, size, location and the likely significant effects of the project. The key variables determining whether or not a particular European site is likely to be negatively affected by a project are:

- The physical distance from the Site to the European site;
- The presence of impact pathways;
- The sensitivities of the ecological receptors; and,
- The potential for in-combination effects.

All SPAs and SACs within 15km have been considered to assess their ecological pathways and functional links. As acknowledged in the OPR guidelines [2], few projects have a zone of influence this large. However, the identification of European sites within 15km has become widely accepted as the starting point for the screening process. For this reason, all SPAs and SACs in 15km have been identified for consideration as part of the screening.

There are two European sites located within 15km of the Site - these are identified in Figure 4-1 and Table 4-1.

**Figure 4-1: European sites within 15km of the Site**



**Table 4-1: European Designated Sites within 15km of the Site**

Site Name	Code	Distance (km)	Direction from the Site
<b>Special Protection Area ('SPA')</b>			
Cork Harbour SPA	004030	4.7m	E
<b>Special Areas of Conservation ('SAC')</b>			
Great Island Channel SAC	001058	11.5km	E

## 4.1 Identification of European Sites within Zol

The Zone of Influence ('Zol') comprises the area in which the Proposed Development may potentially affect the conservation objectives (or qualifying interests) of a European site. The definition of Zol for the proposed works, as outlined in Section 2.1, is evaluated by multiple factors and discussed below. Please note that the extent of Zol differs for different environmental aspects, e.g. air, water, etc.

### 4.1.1 Habitat Loss / Degradation

The following section provides details of the field-based assessment that was undertaken for the Site on the 27<sup>th</sup> August 2024. A description of the habitats and features of ecological significance are outline below and illustrated in Figure 4-2.

#### Amenity Grassland (GA2)

The majority of the Site consists of an area of amenity grassland, with scattered trees within the centre and south of the amenity grassland onsite. Species present within the amenity grassland include perennial ryegrass (*Lolium perenne*), ribwort plantain (*Plantago lanceolata*), ragwort (*Jacobaea vulgaris*), dandelion (*Taraxacum officinale*), field buttercup (*Ranunculus acris*), cut-leaved crane's bill (*Geranium dissectum*), fringed willowherb (*Epilobium ciliatum*), bitter dock (*Rumex obtusifolius*), lesser knapweed (*Centaurea nigra*), clover spp. (*Trifolium* sp.) and bird's-eye speedwell (*Veronica persica*).

#### Hedgerow / Treeline (WL1 / WL2)

The north and eastern boundary of the Site consists of a hedgerow / treeline. This extends along the boundary of the scrub area in the northeast section. The species present include sycamore (*Acer pseudoplatanus*), lime (*Tilia x europaea*), pedunculate oak (*Quercus robur*), ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), silver birch (*Betula pendula*), white poplar (*Populus alba*), grey willow (*Salix cinerea* subsp. *Oleifolia*), elder (*Sambucus nigra*), cypress lawson (*Chamaecyparis lawsoniana*), damson (*Prunus insititia*), rowan, (*Sorbus aucuparia*), New Zealand broadleaf (*Griselinia littoralis*), butterfly bush (*Buddleia davidii*), silver maple (*Acer saccharinum*), sessile oak (*Quercus petraea*), plum (*Prunus domestica*) and horse chestnut (*Aesculus hippocastanum*).

The understory comprises of bramble (*Rubus fruticosus*), herb-robert (*Geranium robertianum*), ribwort plantain, lords and ladies (*Arum maculatum*), stinging nettle (*Urtica dioica*), dogwood (*Cornus sanguinea*), bitter dock (*Rumex obtusifolius*), ivy (*Hedera helix*), fringed willowherb, common sorrel (*Rumex acetosa*), cleavers (*Galium aparine*), common bent (*Agrostis capillaris*) and Himalayan cotoneaster (*Cotoneaster simonsii*).

#### Scrub (WS1)

The area in the northwest corner of the Site is surrounded by a hedgerow / treeline and fence. This area consists predominantly of brambles. Other species present include gorse (*Ulex europaeus*), stinging nettle, ivy, winter heliotrope (*Petasites pyrenaicus*), bitter dock, common rush (*Juncus effusus*), butterfly bush, creeping buttercup (*Ranunculus repens*), cleavers

(*Galium aparine*), dog rose (*Rosa canina*), fringed willowherb (*Epilobium ciliatum*), spear thistle (*Cirsium vulgare*), creeping thistle (*Cirsium arvense*), field thistle (*Cirsium discolor*) and field mustard (*Rhaphospermum arvense*).

#### Treeline / Scattered Trees and Parkland (WL2 / WD5)

Scattered trees are present within the centre and south of the amenity grassland onsite. Species present among the scattered trees include field maple (*Acer campestre*), silver birch, hawthorn (*Crataegus monogyna*), elder, sycamore, ash (*Fraxinus excelsior*), grey willow, hornbeam (*Carpinus betulus*), red maple (*Acer rubrum*), horse chestnut and holly.

#### Recolonising bare ground (ED3)

An area of recolonising bare ground is present inside the area of scrub in the northeast corner of the Site. This area was created to provide an access track to sections of the Site in order to carry out necessary site investigation works. These clearance works were undertaken on the 27<sup>th</sup> May 2024 during the nesting bird season. However, prior to these works taking place the local NPWS officer was consulted and approved the works once no active or disused nests were present in the proposed area of clearance.

Following the clearance works species have recolonised the area. Species present in this area include stinging nettle, spear thistle, creeping buttercup, field thistle, hedge bindweed, scarlet pimpernel, field mustard, ribwort plantain, winter heliotrope, fringed willowherb, common poppy (*Papaver rhoeas*), scarlet pimpernel (*Anagallis arvensis*), field mustard, ribwort plantain, wild radish (*Raphanus raphanistrum*) and hedge bindweed (*Calystegia sepium*),

#### Buildings and Artificial Surfaces (BL1)

Artificial surfaces such as a road and footpaths are present in the southern section of the Site. No species of interest were noted here.

**Figure 4-2: Habitat Map**



The Site is not located within any European sites and there are no known designated habitats located within the Site.

The Site is currently comprised of amenity grassland (GA2), scrub (WS1), hedgerow / treelines (WL1 / WL2), scattered trees (WD5) and recolonising bare ground (ED3). The habitats are located within an urban area and are surrounded by residential buildings and commercial properties.

Therefore, it is concluded that there will be no direct impacts associated with designated habitat loss / degradation. No impacts associated with designated habitat loss / degradation as a result of the Proposed Development will occur given the distance separating and the lack of hydrological connection between the Site and the European sites.

#### **4.1.2 Water Quality Impairment**

Potential water quality impacts would typically be associated with the release of sediment and other pollutants to surface water during the construction phase of the Proposed Development. Therefore, the ZOI would be considered to include the receiving waterbodies adjacent to and downstream of the Site during the construction phase within 5km.

As outlined in Section 3.2, there is no direct hydrological connection between the Proposed Development, any European Sites or any EPA watercourses.

Furthermore, all construction works associated with the Proposed Development will take place within a built-up area and as outlined in Section 3.3.1 all surface water and foul water be directed through the proposed drainage system to the public sewer system.

In addition, there will be no direct discharges from the Proposed Development to any watercourse during the works and all works will be carried out in accordance with best practice guidelines.

During the operational phase of the Proposed Development, surface water and foul drainage will be directed through the proposed drainage networks onsite as outlined in Section 3.3.1.

Taking the above into account, it can, therefore, be objectively concluded that the Proposed Development will not result in any likely significant effects on the Great Island Channel SAC or Cork Harbour SPA without taking mitigation measures into account. As such impacts associated with water quality impairment have been screened out from further consideration.

#### **4.1.3 Air Quality Impairment**

According to the Institute of Air Quality Management ('IAQM') Guidelines, potential adverse effects from dust arising from construction to ecological receptors occur within 50m of a construction Site [24].

All identified European sites are located outside of this zone of influence. The closest European Designated Site is Cork Harbour SAC which is located 4.7km from the Site and, therefore, does not require a detailed dust assessment.

Therefore, it can be concluded that no impacts associated with dust will occur as a result of the Proposed Development given the distance separating the Site from the European sites.

#### **4.1.4 Noise / Disturbance**

Noise from the construction activity has the potential to cause disturbance to resting, foraging and commuting qualifying species of the European sites. As there will be no piling or in-river works required for the Proposed Development, there is no potential for underwater noise impacts beyond the immediate vicinity of the Site.

Individual species will provoke different behavioural responses to disturbances at different distances from the source of disturbance.

- Transport Infrastructure Ireland (formally the National Roads Authority) has produced a series of best practice planning and construction guidelines for the treatment of certain protected mammal species (i.e., otter), which indicate that disturbance to terrestrial mammals would not extend beyond 150m [25]; and,
- Studies have noted that different types of disturbance stimuli are characterized by different avifaunal reactions; however, in general, a distance of 300m can be used to represent the maximum likely disturbance distance for waterfowl [26].

Therefore, the Zol for noise / disturbance is established at the Site with a 300m buffer. All identified European sites are located outside of this zone of influence.

Furthermore, there are no habitats onsite or within close proximity of the Site which are suitable for any of the bird species designated for the Cork Harbor SPA. It can therefore be stated that there is no potential for disturbance / noise impacts to occur on any designated species as a result of the Proposed Development.

Additionally, the onsite habitats are unsuitable for designated species and no designated species were identified as part of the bird surveys completed. However, birds are highly mobile and have the potential to fly inland from coastal foraging and roosting areas. Given the potential for designated species from Cork Harbour SPA to utilise the Site, this receptor has been taken forward for further consideration.

Given the distance and intervening lands separating the Site from the European Sites, it is considered that the Proposed Development will not result in adverse effects to the European Sites listed in Table 4-1. However, taking a precautionary approach due to the highly mobile nature of these designated species, further consideration will be given to potential impacts on designated species of Cork Harbour SPA as a result of noise / disturbance.

#### **4.1.5 Invasive Species**

No medium or high-impact invasive species (including those that are regulated under Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011) [8]) were recorded within the Site.

Therefore, no impacts associated with the spread of invasive species as a result of the Proposed Development are anticipated.

#### **4.2 Zol Conclusion**

The Site is not located within or directly adjacent to any European sites; however, the boundaries of two are located within 15km from the Site.

Given the distance separating the Site from the Great Channel Island SAC and the Cork Harbour SPA, the intervening lands separating the Site from the European sites and the lack of impact pathways, it is considered that the Proposed Development will not result in adverse effects to these European sites, and they have been screened out from further consideration. However, due to

The following European sites listed in Table 4-2 have been screened in for further consideration to assess potential adverse effects resulting from the Proposed Development.

The Site is not located within or directly adjacent to any European sites. However, the boundaries of two are located within 15km from the Site.

Given the short duration of the construction works, the distance separating the Site from the Great Island Channel SAC, the intervening lands separating the Site from the European site and the lack of impact pathways, it is considered that the Proposed Development will not result in adverse effects to this European site. They have therefore been screened out from further consideration.

The following European site listed in Table 4-2 have been screened in for further consideration to assess potential adverse effects resulting from the Proposed Development.

**Table 4-2: European Designated Sites within Zol**

Site Name	Code	Distance at closest point and source-pathway-receptor link
Cork Harbour SPA	004030	The Site is located 4.7km west of the Cork Harbour SPA, see Figure 4-1. Due to the highly mobile nature of designated species and as a precautionary approach potential noise/disturbance to the designated species will be taken forward for further consideration.

The screening assessment for individual designated habitats and species for each of the screened in European sites and the potential for them to be adversely affected by the Proposed Development are presented in Section 6 below.

Further information on Cork Harbour SPA is provided below.

### 4.3 Cork Harbour SPA (Site Code: 004030)

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poul nabibe inlets.

The site is a SPA under the E.U. Birds Directive, of special conservation interest for a number of species including Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail and Shoveler (Refer to Table 4-3). The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetlands & Waterbirds.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern.

Cork Harbour is also a Ramsar Convention site, part of Cork Harbour SPA, and is a Wildfowl Sanctuary.

**Table 4-3: Qualifying Annex I Species for Cork Harbour SPA**

Species Name	Scientific Name	Code
Little Grebe	<i>Tachybaptus ruficollis</i>	A004
Great Crested Grebe	<i>Podiceps cristatus</i>	A005
Cormorant	<i>Phalacrocorax carbo</i>	A017
Grey Heron	<i>Ardea cinerea</i>	A028
Shelduck	<i>Tadorna tadorna</i>	A048
Wigeon	<i>Anas penelope</i>	A050
Teal	<i>Anas crecca</i>	A052
Pintail	<i>Anas acuta</i>	A054

Species Name	Scientific Name	Code
Shoveler	<i>Anas clypeata</i>	A056
Red-breasted Merganser	<i>Mergus serrator</i>	A069
Oystercatcher	<i>Haematopus ostralegus</i>	A130
Golden Plover	<i>Pluvialis apricaria</i>	A140
Grey Plover	<i>Pluvialis squatarola</i>	A141
Lapwing	<i>Vanellus vanellus</i>	A142
Dunlin	<i>Calidris alpina</i>	A149
Black-tailed Godwit	<i>Limosa limosa</i>	A156
Bar-tailed Godwit	<i>Limosa lapponica</i>	A157
Curlew	<i>Numenius arquata</i>	A160
Redshank	<i>Tringa totanus</i>	A162
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	A179
Common Gull	<i>Larus canus</i>	A182
Lesser Black-backed Gull	<i>Larus fuscus</i>	A183
Common Tern	<i>Sterna hirundo</i>	A193
Wetland and Waterbirds		A999

## 4.4 Conservation Objectives

European and national legislation places a collective obligation on Ireland and its citizens to maintain a favourable conservation status at candidate and designated European Sites. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

According to the EU Habitats Directive, favourable conservation status of a habitat is achieved when:

- Its natural range, and the area it covers within that range, is stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and,
- The conservation status of its typical species is favourable as defined below.

The favourable conservation status of a species is achieved when:

- Population data on the species concerned indicate that it is maintaining itself;
- The natural range of the species is neither being reduced or likely to be reduced for the foreseeable future; and,
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Conservation objectives for all identified Natura 2000 SPA sites are as follows:

*'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.'*

The full report for the conservation objectives for the Cork Harbour SPA<sup>1</sup> can be found on the NPWS website [27].

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<sup>1</sup> [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004030.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf)

## 5 STUDY RESULTS

### 5.1 Desk Study Results

Table 5-1 provides a summary of records of legally protected or otherwise notable species under protected under Cork Harbour SPA that occurred within 2km of the Site at the time of writing this report. The NBDC records were checked on 17<sup>th</sup> December 2024 [12]. The following NBDC 2km grids have been checked: W66J, W66P, W66U, W67F, W67K, W67Q.

Only species recorded within the past 10 years were included in Table 5-1. The parameter of 10 years was chosen based on habitat adaption and modification; it is considered that any records over 10 years old are not representative of the current distribution of species populations.

**Table 5-1: NBDC Records for Species Designated for the Cork Harbour SPA within 2km of the Site**

Common Name	Scientific Name	Date of Last Record	Designated
<b>Designated Species</b>			
Black-headed Gull	<i>Larus ridibundus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Black-tailed Godwit	<i>Limosa limosa</i>	05/12/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Common Redshank	<i>Tringa totanus</i>	20/11/2026	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Common Sandpiper	<i>Actitis hypoleucos</i>	18/03/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Eurasian Curlew	<i>Numenius arquata</i>	20/11/2026	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section II Bird Species Birds of Conservation Concern Red List
Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	05/12/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Eurasian Teal	<i>Anas crecca</i>	02/01/2023	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III Section II Bird Species Birds of Conservation Concern Amber List
Great Cormorant	<i>Phalacrocorax carbo</i>	31/03/2020	Wildlife Acts 1976 / 2000

Common Name	Scientific Name	Date of Last Record	Designated
			Birds of Conservation Concern Amber List
Grey Heron	<i>Ardea cinerea</i>	29/03/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Lesser Black-backed Gull	<i>Larus fuscus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Little Grebe	<i>Tachybaptus ruficollis</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Gull	<i>Larus canus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Northern Lapwing	<i>Vanellus vanellus</i>	20/11/2016	Wildlife Acts 1976 / 2000 EU Birds Directive Annex II Section II Bird Species Birds of Conservation Concern Red List
Northern Shoveler	<i>Anas clypeata</i>	19/05/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III Section III Bird Species Birds of Conservation Concern Red List
<b>Wetland and Waterbirds [A999]</b>			
Common Coot	<i>Fulica atra</i>	24/12/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II and III Section I and II Bird Species Birds of Conservation Concern Amber List
Common Greenshank	<i>Tringa nebularia</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Common Kingfisher	<i>Alcedo atthis</i>	12/12/2019	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Common Moorhen	<i>Gallinula chloropus</i>	06/06/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List

Common Name	Scientific Name	Date of Last Record	Designated
Common Snipe	<i>Gallinago gallinago</i>	07/05/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section III Bird Species Birds of Conservation Concern Red List
Dunlin	<i>Calidris alpina</i>	20/11/2016	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex I Bird Species Birds of Conservation Concern Red List
Herring Gull	<i>Larus argentatus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Iceland Gull	<i>Larus glaucoides</i>	13/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Little Egret	<i>Egretta garzetta</i>	12/03/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex I Bird Species Birds of Conservation Concern Green List
Mallard	<i>Anas platyrhynchos</i>	19/05/2020	Wildlife Acts 1976 / 2000 EU Birds Directive Annex II Section I and Annex III and Section I Bird Species Birds of Conservation Concern Amber List
Mandarin Duck	<i>Aix galericulata</i>	02/04/2015	Wildlife Acts 1976 / 2000
Mute Swan	<i>Cygnus olor</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Sanderling	<i>Calidris alba</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Tufted Duck	<i>Aythya fuligula</i>	20/03/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section II Bird Species Birds of Conservation Concern Amber List
White-throated Dipper	<i>Cinclus cinclus</i>	29/03/2022	Wildlife Acts 1976 / 2000

Common Name	Scientific Name	Date of Last Record	Designated
			Birds of Conservation Concern Green List
Yellow-legged Gull	<i>Larus michahellis</i>	24/05/2022	Wildlife Acts 1976 / 2000

## 5.2 Field Based Study Results

### 5.2.1 Wintering Bird Surveys

During the wintering bird surveys, a total of 12 species were recorded:

- Five Green-listed Birds of Conservation Concern Ireland ('BoCCI') non-Annex I species– blackbird, hooded crow, magpie, rook and wood pigeon;
- Seven Amber-listed BoCCI, non-Annex I species were recorded – black-headed gull, buzzard, common gull, herring gull, lesser black-backed gull, little gull and starling; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

Of these species, three were a designated species under the Cork Harbour SPA - black-headed gull, common gull, and lesser black-backed gull. In addition, two species can be classified under the designation of 'Wetland and Waterbirds [A999]' under the Cork Harbour SPA - herring gull and little gull. These are all amber listed species. All of these species were observed flying over the Site and did not interact with the Site during the surveys.

### 5.2.2 Breeding Bird Surveys

During the breeding bird surveys, a total of 18 species were recorded:

- 14 Green-listed BoCCI non-Annex I species – blackbird, blackcap, blue tit, chaffinch, dunnock, goldfinch, great tit, hooded crow, magpie, robin, rook, song thrush, wood pigeon and wren;
- Three Amber-listed BoCCI, non-Annex I species were recorded – goldcrest, swallow and starling;
- One Amber BoCCI listed Annex species was recorded - mallard; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

It should be noted that none of these species recorded were classified as designated species under the Cork Harbour SPA. However, one species that was recorded flying over the Site, mallard, can be classified as 'Wetland and Waterbird [A999]' which is designated under the Cork Harbour SPA.

## 6 SCREENING AND ASSESSMENT OF POTENTIAL IMPACTS

Using professional experience, guidance and judgement, the following factors have been taken into account in identifying potential significant impacts on the identified European sites:

- Distance from any European Designated site;
- Qualifying Interests;
- Special Conservation Interests;
- Conservation Objectives;
- The nature of the onsite habitats;
- The location of the Site; and,
- The scale and disturbance of the Proposed Development.

Based on these factors, the following potential significant impact has been taken forward for further consideration:

- Disturbance to Designated Species.

The screening exercise did not identify any other factors that will result in any direct or indirect loss or disturbance to any of the Annex I habitats or Annex I or II species for which the European sites are designated.

### 6.1 Disturbance to Designated Species

This Site is located within a residential, built-up urban area. There are no SPAs adjacent to the Site or within the immediate vicinity of the Site; the closest SPA is Cork Harbour SPA, located ca. 4.7km. However, birds are highly mobile and have the potential to fly inland from coastal foraging and roosting areas.

The winter bird surveys and the breeding bird surveys conducted at the Site did not identify any designated species utilising the Site or interacting with the Site. Full details of the bird surveys undertaken on the Site can be found in the bird report attached as Appendix A.

The Site itself is not considered to be optimal for designated bird species of the Cork Harbour SPA given the nature of the habitats onsite and the levels of disturbance within the locality; bird surveys undertaken on the Site confirmed this. The wider area is predominantly built-up, the ESB Wilton depot located to the south, the Wilton shopping centre to the north and the busy R641 Sarsfield Road to the east. Residential developments lie to the west.

The Proposed Development will be comprised of 2-6 story apartment buildings and townhouses. Within the vicinity of the Site, specifically to the northeast of the Site, Cork University Hospital is of a similar height (i.e., approximately 4-5 storeys tall). The external building style and materials (brick, bay windows, glazed curtain walling, recessed metal cladding and selected aluminium windows) are in keeping with the architecture and landscape in the neighbourhood.

It is considered unlikely that the Proposed Development will result in a significant collision risk to local bird species. This is based on the fact the buildings within the vicinity of the Site are of a similar height to those proposed as part of the Proposed Development.

Although birds are known to sometimes aggregate around and occasionally collide with illuminated objects, the Proposed Development is located within an urban environment and is surrounded by illuminated residential properties, roads, and other infrastructure. Furthermore, a Lighting Plan has been prepared for the Proposed Development. The proposed lighting is

broadly in keeping with that of the surrounding area and will, therefore, not create any significant collision hazard.

Overall, it is considered that the Proposed Development will not stand out in its landscape and thus should not impact the flight patterns of birds flying over the Site. The Proposed Development will not result in any direct or indirect loss or disturbance to any of the Annex I habitats or Annex I or II species for which the Cork Harbour SPA is designated. This conclusion is based on the bird survey results, the location, scale of the Proposed Development along with the intervening land separating the Site from the Cork Harbour SPA, which is predominately an urban area.

In addition, there are no Annex I habitats for which the Cork Harbour SPA is designated within or in the vicinity of the Site boundary. Additionally, the onsite habitats are unsuitable for designated species and no designated species were identified as part of the bird surveys completed.

On the basis of the Source-Pathway-Receptor ('SPR') risk assessment principle, there is no ecological or functional link between the Proposed Development and any European site within 15km. Therefore, there is no potential for any adverse effects to occur as result of disturbance from the Proposed Development on the Cork Harbour SPA or any other European sites or any of the qualifying species of interest.

## 6.2 Analysis of 'In-Combination' Effects

The Habitats Directive requires competent authorities to make an appropriate assessment of any plan or project which is likely to have a significant effect alone or in-combination with other plans and projects.

As described above, the proposed work alone is unlikely to have any direct or indirect adverse effects on any of the European sites located with 15km of the Site.

A review of the Cork City Council ePlan [14] website and the Department of Housing, Local Government and Heritage's planning portal – the National Planning Application Database was undertaken to identify any active or granted plans projects in the immediate vicinity that are considered likely to result in in-combination significant impacts with the Proposed Development on European sites.

Given the urban nature of the Site, the review identified a number of developments in the area for residential and commercial development within the wider area. Table 6-1 outlines adjacent developments identified as notable.

**Table 6-1: Planning Applications within the vicinity of the Site**

Application Ref	Decision	Development Description	Appropriate Assessment
CCC: 1837794 ABP-302596-18	Granted by ABP – 21/05/2019	Permission for a mixed-use development at Wilton Shopping Centre on a site of 4.82 hectares, which is located to the south of Bishopstown Road, to the east of Cardinal Way and to the west of Sarsfield Road at Wilton, Cork City. The proposed development consists of: the partial demolition of the existing shopping centre [including the Pennys anchor store located at 56 Homefront] located to the northern end of the existing shopping centre comprising an area of 4,222m <sup>2</sup> and the removal of 420 surface car parking spaces. The proposed development also consists of the construction of an	Stage 1 Appropriate Assessment was submitted and the ABP Inspectors Report concluded, " <i>It is reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually and in combination with other plans or projects would not be likely to have a significant effect on any European Site and in particular Cork Harbour SPA (site code</i>

Application Ref	Decision	Development Description	Appropriate Assessment
		extension to the existing shopping centre ranging in height from two to seven stories. The proposed extension consists of: Retail and retail services [including cafe/restaurant uses] over three levels comprising 21,223m <sup>2</sup> GFA, a 14 screen [1,550 seats], cinema comprising 4,165m <sup>2</sup> GFA, offices comprising 4,398m <sup>2</sup> GFA, a 190 no. bedroom hotel comprising 9,335m <sup>2</sup> GFA, a public plaza and outdoor seating area, a multi storey car park with 6 levels providing 874 spaces, a surface car park on the roof of the second storey which is accessed from the multi storey car park providing 257 spaces and the replacement of 178 surface car parking spaces as well as 227 bike parking spaces and 70 motorbike parking spaces. Also proposed is a new vehicular entrance/egress from Sarsfield Road, as well as the relocation of the existing pedestrian crossing further north on Sarsfield Road. In addition, dedicated floorspace for landlord areas is proposed, including food court seating, toilets, shared cores, general circulation areas and corridors.	004030) and Great Island Channel SAC (site code 001058) or any other European site, in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment (and submission of a NIS) is not required."

Due to the urban landscape of the Proposed Development, the localised scale and short timeframes of both the Proposed Development and surrounding projects identified on the ePlanning portal, it is considered unlikely to have any cumulative impacts on any European sites in the context of the existing infrastructure and associated activities taking place at the Site.

This statement is supported by:

- I. Location of the Site within an existing urban area;
- II. The absence of any hydrological connection between the Site and any European sites;
- III. The distances and intervening lands separating the Site from European sites; and,
- IV. The localised nature of the proposed works.

Taking the above into account and given the fact that the aforementioned projects will not result in any significant effects to European Designated Sites, it can be concluded that the Proposed Development will not result in any in-combination contribution to significant effects on the integrity of any European Sites. This is further supported by the distance separating the Site and the relevant European sites and the lack of a direct hydrological connection.

## **7 SCREENING CONCLUSIONS AND STATEMENT**

The screening process has examined the details of the Proposed Development and has considered the potential for causing adverse effects on European sites and their qualifying features of interests within a 15km radius of the Site.

Two designated sites – Cork Harbour SPA and Great Island Channel SAC - are located within a 15km radius of the Site. However, given the scale and localised nature of the Proposed Development and the lack of impact pathways between the Site and European sites, as described in Section 4 and Section 5, it can be concluded that the Proposed Development will not result in any significant impacts either directly or indirectly on the conservation objectives or status of the listed European sites and will not result in the direct loss or disturbance of any Annex I habitats and / or Annex II species for which the European sites are designated.

It has been objectively concluded, following an examination, analysis, and evaluation of the relevant information, that the Proposed Development, either alone or in-combination with other plans, projects or land uses, have not had and will not have any direct or indirect significant effects on any European sites in light of the site's conservation objectives and best scientific knowledge, and no reasonable scientific doubt exists in relation to this conclusion.

Accordingly, the progression to Stage 2 of the Appropriate Assessment process (i.e., preparation of a Natura Impact Statement) is not considered necessary.

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# APPENDICES

# APPENDIX A

# Bird Report



## **Proposed Large-Scale Residential Development at LDA Wilton, Sarsfield Road, Cork**

**On behalf of  
The Land Development Agency  
(‘LDA’)**





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**Job Number: E2170**

**Prepared By: Annie Coady**

**Signed:** Annie Coady

**Checked By: Henry Tennyson**

**Signed:** Henry Tennyson

**Approved By: Amelia Keane**

**Signed:** Amelia Keane

## Revision Record

Issue No.	Date	Description	Remark	Prepared	Checked	Approved
00	19/12/24	Bird Report	Draft	AC	HT	AK
01	20/12/24	Bird Report	Final	AC	HT	AK
02	14/04/25	Bird Report – update landscaping	Final	AC	HT	AK

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## **Bird Report**

### **Proposed Large-Scale Residential Development at LDA Wilton, Sarsfield Road, Cork**

**The Land Development Agency ('LDA')  
LDA Wilton, Sarsfield Road, Co. Cork**

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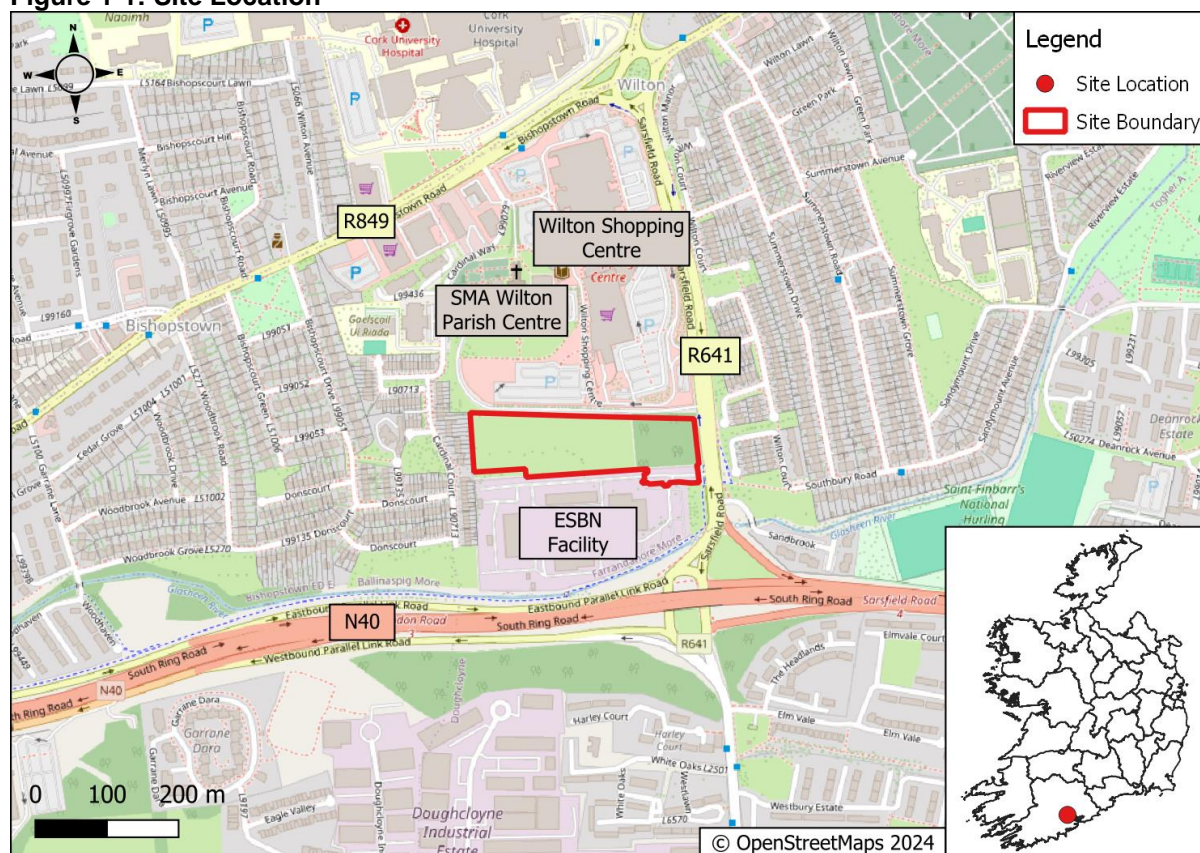
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# 1 INTRODUCTION

Malone O'Regan Environmental ('MOR Environmental') was commissioned by Reddy Architecture + Urbanism on behalf of the Land Development Agency ('LDA') ('the Applicant') to present the findings of wintering and breeding bird surveys in respect of a planning application for the construction and operational phases of a proposed Large Residential Development ('LRD') ('the Proposed Development') at Farrandahadore More, Sarsfield Road, Wilton (OS ITM Reference X: 564999, Y: 569684).

The Proposed Development will be located on a site that is circa ('ca.') 2.61 hectares ('ha') in size and is located on a site adjacent to Sarsfield Rd., Wilton, Cork, ca. 3km southwest of Cork City Centre and is shown in Figure 1-1 ('the Site').

**Figure 1-1: Site Location**



## 1.1 Relevant Legislation

All wild birds are protected by law under the Wildlife Act 1976 and subsequent amendments. All species are afforded full protection under this Act, which makes it a criminal offence for anyone without a licence to:

- Kill or injure a wild bird;
- Disturb, damage or remove a wild bird nest or eggs; and,
- Disturb any wild bird while at the nest.

In addition to domestic legislation birds are also protected under the EU Birds Directive (2009/147/EC). The Birds Directive provides for a network of sites to protect birds at their breeding, feeding, roosting and wintering areas.

For the purposes of this report, a species was considered to be of 'conservation concern' should it include one or more of the following:

- Annex 1 of the EU Birds Directive;
- Part 1 of the Fourth Schedule of the Wildlife Act, 1976 (as amended);
- Birds of Conservation Concern in Ireland ('BoCCI') Red list; and,
- BoCCI Amber list.

## 1.2 Objectives

The bird surveys aimed to assess the following:

### Bird Habitat Assessment

- To identify, if any, suitable habitat for breeding birds to support important assemblages of wintering birds or support rare or notable species.

### Wintering Bird Surveys

- To identify, if any, overwintering bird species utilise the Site;
- To determine the potential of overwintering bird species, especially wetland bird species, to utilise the Site as an inland feeding / roosting Site;
- To assess all potential impacts, if any, of the Proposed Development on overwintering wetland bird species; and,
- To provide additional mitigation measures, should they be required.

### Breeding Bird Surveys

- To identify and assess the number of active breeding bird territories within the Site;
- To map active nests, where present, within the Site;
- To evaluate the overall bird community within the Site by recording all behavioural activity of birds;
- Utilise the information in order to identify and assess any areas of the Site that may require special consideration during the breeding bird season;
- Assess all potential impacts, if any, of the Proposed Development on breeding bird species; and,
- Provide additional mitigation measures, should they be required.

## 1.3 Statement of Authority

This report was checked by Mr. Henry Tennyson, MOR Environmental Consultant – Ecology. Henry is a qualifying member of the Chartered Institute of Ecology and Environmental Management ('CIEEM') with over 4 years' experience working in the environmental consultancy sector. As part of his role, Henry regularly conducts ornithological surveys and assessments for various projects across Ireland and has experience in conducting surveys in line with Best Practice Guidelines.

This report was approved by Ms. Amelia Keane, Senior Environmental Consultant - Ecology. Amelia has a B.Sc. (Hons) Zoology and an M.Sc. Wildlife Conservation and Management. Amelia is a full member of CIEEM and has over 6 years' experience working in ecological consultancy with a specialisation in ornithology. Amelia co-authored the publication '*Conservation conflict: Managing forestry versus hen harrier species under Europe's Birds Directive*' [1]. As part of her role, Amelia regularly conducts ornithological surveys for various projects across Ireland and has experience in conducting vantage point surveys, including for

receptors such as raptors (specifically hen harrier), owls, geese, swans and waders, etc., wintering and breeding farmland bird transect surveys, ground-nesting bird surveys, breeding woodcock surveys, barn swallow surveys, breeding bird habitat suitability assessments, and winter bird habitat suitability assessments. Amelia regularly prepares specialist ornithological assessments and reports.

## 2 METHODOLOGY

The methodologies used to establish the presence or potential presence of breeding birds and potentially suitable habitats are summarised below.

### 2.1 Desk Study

A desk-based review of information sources was completed, which included the following sources of information:

- Review of aerial maps of the Site and surrounding area;
- The National Parks and Wildlife Service ('NPWS') website was consulted to obtain the most up-to-date detail on conservation objectives for the European sites relevant to this assessment [2];
- BirdWatch Ireland – The Irish Wetland Bird Survey ('I-WeBS') data, which is coordinated by BirdWatch Ireland and under contract to the NPWS, was reviewed with regard to wintering waterbird population within the vicinity of the Site [3]; and,
- The National Biodiversity Data Centre ('NBDC') website was consulted with regard to species distributions within 2km of the Site [4].

#### 2.1.1 Irish Wetland Bird Survey (I-WeBS)

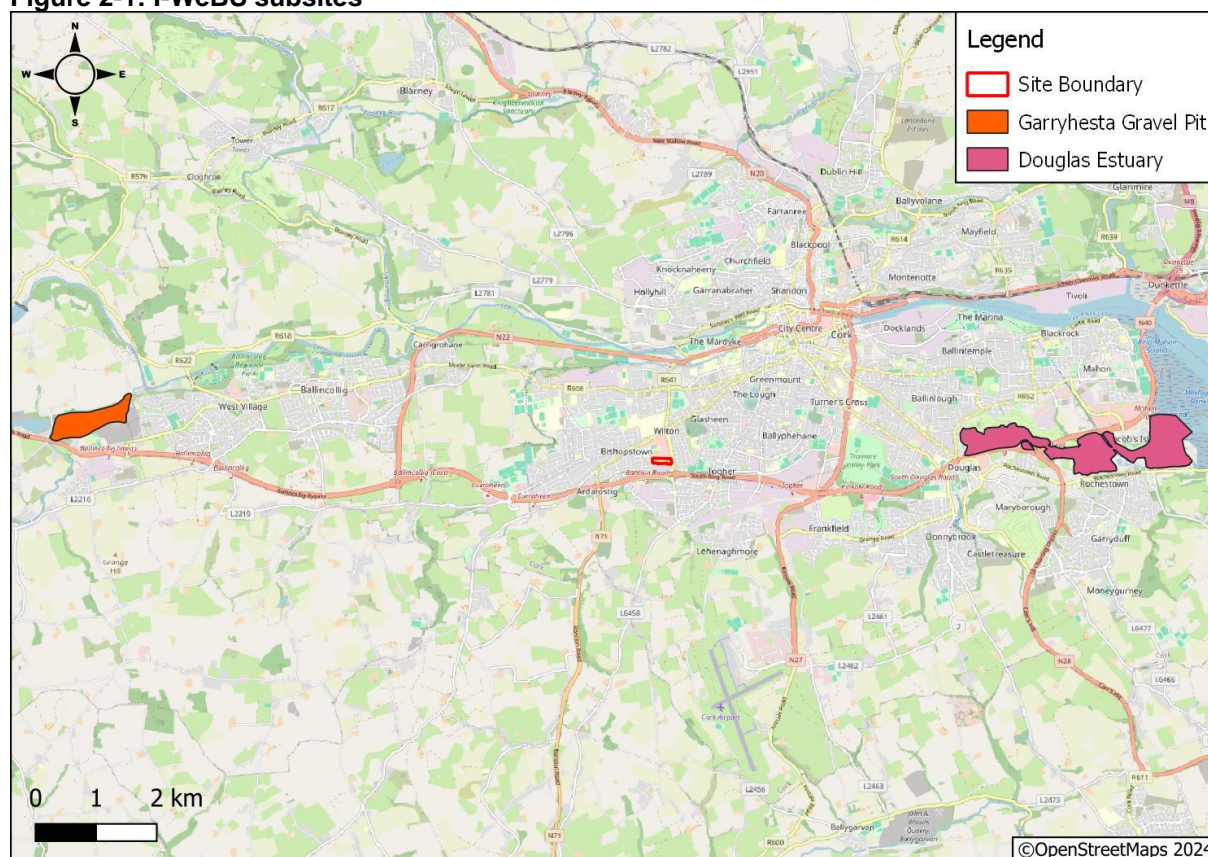
As mentioned above, I-WeBS data was reviewed in order to understand the potential assemblages of wintering bird populations that tend to occur within the vicinity of the Site.

As part of this review, a data request was submitted to the I-WeBS on 26<sup>th</sup> March 2024. The data request was made for all available data from the nearest subsites to the east and west of the Site, as listed in Table 2-1 below. See Figure 2-1 for the location of the subsites in relation to the Site.

**Table 2-1: I-WeBS Data Request**

Site Name	Subsite Name	Site Code	Subsite Code
Cork Harbour	Douglas Estuary	0L403	0L488
Garryhesta Gravel Pit	Garryhesta Gravel Pit	0L202	N/A

**Figure 2-1: I-WeBS subsites**



## 2.2 Field Studies

### 2.2.1 Habitat Assessment

A habitat survey was undertaken at the Site by a suitably qualified MOR Environmental Ecologist on the 7<sup>th</sup> September 2023, using the Fossitt's *'Guide to Habitats in Ireland'* [5]. The habitat survey aimed to identify the extent and quality of habitats present on the Site.

Additional follow-up habitat surveys were carried out on 27<sup>th</sup> May 2024 and 27<sup>th</sup> August 2024 by suitably qualified MOR Environmental Ecologists to confirm that the composition of the habitats onsite had not changed.

### 2.2.2 Bird Habitat Assessment

During the initial habitat survey, the Site was assessed for its potential to provide nesting habitat for breeding birds, to support important assemblages of wintering birds or to support rare or notable species. All field boundaries were walked, and the habitats onsite were fully assessed for their potential to provide suitable nesting, winter roosting habitat or foraging habitat. Areas of scrub habitat and hedgerow / treelines were noted.

Following the desk-based review, the bird habitat assessment and the review of the design of the Proposed Development, it was deemed necessary to undertake specialist wintering and breeding bird surveys onsite.

### 2.2.3 Winter Bird Survey

Typically, the wintering bird season encompasses mid-September to mid-March.

Winter bird surveys were undertaken by one suitably qualified and experienced MOR Environmental Ecologist on 10<sup>th</sup> November 2023, 20<sup>th</sup> December 2023 and 18<sup>th</sup> January 2024. The date, time and weather conditions of each survey are described in Table 2-2.

These surveys were conducted in accordance with the Winter Farmland Bird Survey methodology provided by the British Trust for Ornithology ('BTO') [6] and, the Wintering and Migratory Wildfowl (especially geese and swans) survey methodology provided by the Scottish Natural Heritage ('SNH') [7].

These surveys were undertaken to determine whether or not wintering birds were utilising the Site and the area within the immediate vicinity of the Site.

A pre-determined vantage point ('VP') was selected that had sufficient views of the Site (see Figure 2-2). All species observed utilising the Site were recorded, and their locations were marked on the maps.

Following the completion of the VP survey, a transect survey was undertaken to flush out any birds that may not have been visible during the VP survey (see Figure 2-2). The transect survey involved walking around the trees in the centre of the Site that blocked the viewshed of the surveyor during the VP survey.

During the surveys, all birds were recorded using a standard British Trust for Ornithology ('BTO') code through sight and sound and optical equipment, such as a telescope and binoculars, to minimise disturbance to wintering birds. The behaviours and activity of the birds were recorded to identify whether the birds were roosting or feeding within the Site. Birds flying over the Site were recorded unless they were clearly associated with the Site (i.e., flushed from the Site).

The locations of all birds were recorded on an overview map of the Site, and the zone in which the birds were located was noted. The zone represents where they were first recorded and are described as follows:

- Boundary – birds located within or adjacent to treelines, hedgerows or other boundary structures;
- Margin – birds located within the outer 20m of fields; and,
- Interior – birds located within the field beyond the margin zone.

The surveys were timed to coincide with the high tide at Cork Harbour, or as close to high tide as possible in suitable weather and lighting conditions, in order to ascertain whether or not overwintering wetland birds within Cork Harbour were utilising the Site for foraging or roosting purposes when favourable habitats (such as mudflats) were inaccessible.

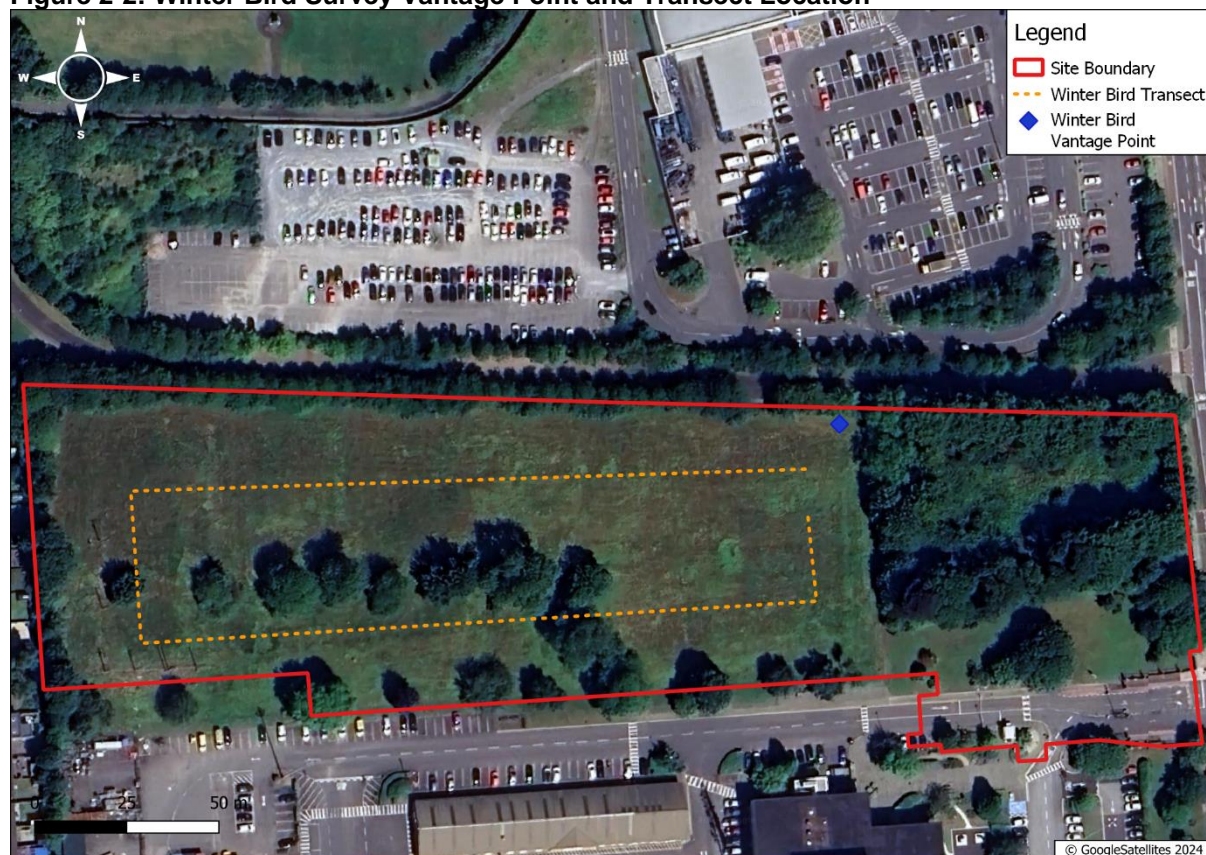
**Table 2-2: Wintering Bird Survey Metadata**

Visit	Date	Survey Times (Start-End)	High Tide	Temperature (°C) (Start – End)	Wind (Beaufort Wind Scale)	Rain	Cloud Cover
1 <sup>a</sup>	10/11/2023	14:00 - 17:00	15:23	11°C- 8°C	3 - 4	None	25-50%
2 <sup>a</sup>	20/12/2023	09:51 – 12:51	11:21	9°C - 9°C	5	None	70%
3	18/01/2024	09:30 – 12:30	10:25	-3 - 2°C	2	None	0%

\*Note: Visits 1 and 2 did not include the area within the scrub in the northeast corner due to lack of accessibility.

<sup>a</sup> Visits 1 and 2 did not include the area within the scrub in the northeast corner due to lack of accessibility

Figure 2-2: Winter Bird Survey Vantage Point and Transect Location



## 2.2.4 Breeding Bird Survey

Breeding bird transect surveys were undertaken on 2<sup>nd</sup> May, 22<sup>nd</sup> May and 17<sup>th</sup> June 2024 by a suitably qualified and experienced MOR Environmental ecologist. These breeding bird surveys were conducted in line with the methodology described in:

- BTO - *A Field Guide to Monitoring Nests* [8]; and,
- Common Bird Census in *Bird Monitoring Methods* [9].

In order to establish whether any breeding bird species were utilising the Site or the airspace above the Site, the Common Bird Census ('CBC') methodology was utilised. The transect survey was designed to cover all accessible habitat within the Site (see Figure 2-2).

All birds were recorded through sight and sound. Optical equipment, such as binoculars, was used in order to minimise disturbance to potentially breeding birds. Suitable vegetation onsite was examined for the presence of nests. During the survey, the behavioural activity of the recorded birds was noted using the BTO breeding status codes [2]. Birds that displayed non-territorial behaviours were recorded as well (i.e., birds that were foraging and not calling, birds that were loafing).

Therefore, birds were classified as non-breeding, possibly breeding and confirmed breeding based on the behaviours exhibited. The criteria for each classification is described below:

- Non-breeding – Birds that were flying over the Site, birds that were foraging and not calling, birds that were loafing;
- Possibly Breeding – Birds observed in suitable nesting habitat and displaying either territorial and / or courtship behaviours, nest building behaviours or observed visiting a possible nest; and,

- Confirmed Breeding – Birds observed either on nest or carrying faecal sac or food, sighting of a nest with eggs / chicks, used nests, eggshells or recently fledged young.

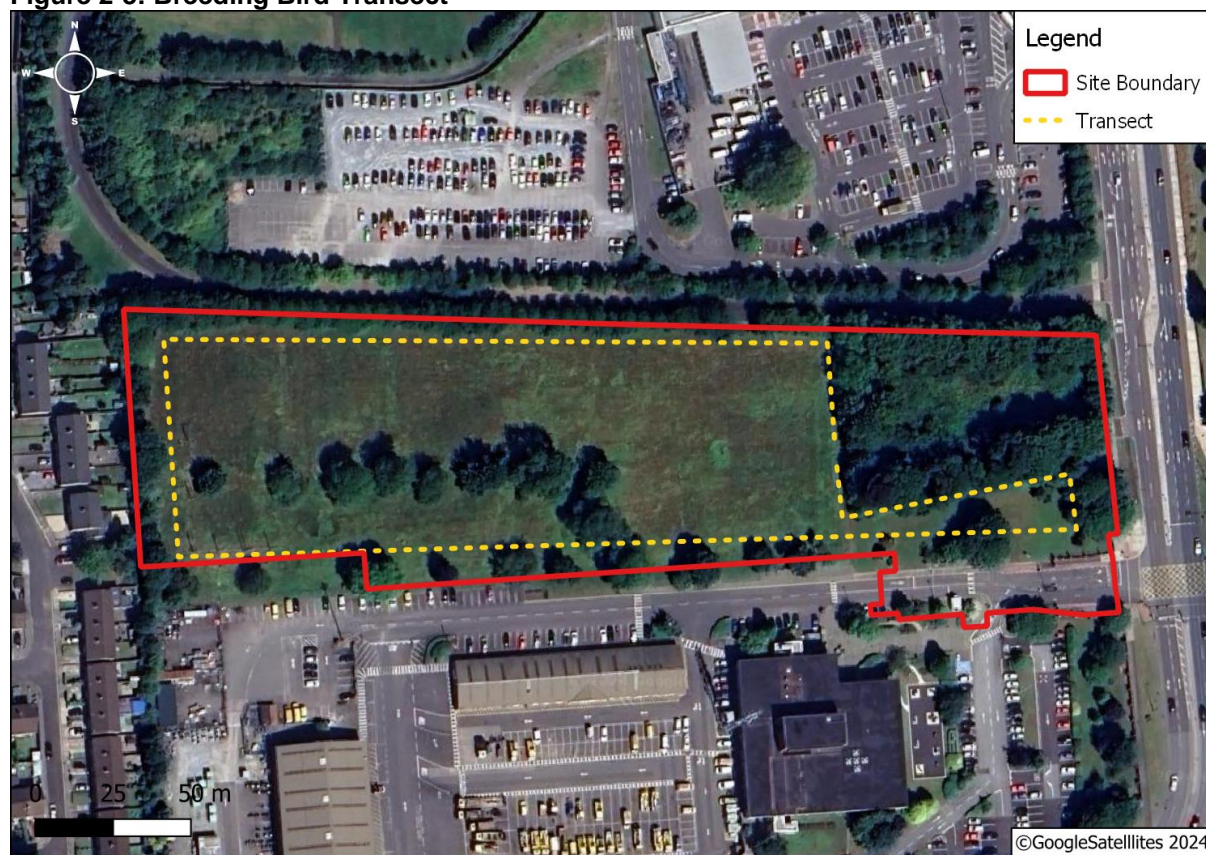
The metadata for the breeding bird surveys are described in Table 2-3. The transect walked is shown in Figure 2-3.

**Table 2-3: Breeding Bird Survey Metadata**

Visit	Date	Survey Times (Start-End)	Temperature (°C) (Start – End)	Wind (Beaufort Wind Scale)	Rain	Cloud Cover
1 <sup>a</sup>	02/05/2024	07:30 – 09:10	6 – 7°C	2	Light drizzle at the end of the survey	66-100%
2 <sup>a</sup>	22/05/2024	07:15 – 08:50	11 – 13°C	3	None	33-66%
3	17/06/2024	07:15 – 09:00	11 – 14°C	2	None	33-66%

\*Note: Visits 1 and 2 did not include the area within the scrub in the northeast corner due to lack of accessibility.

**Figure 2-3: Breeding Bird Transect**



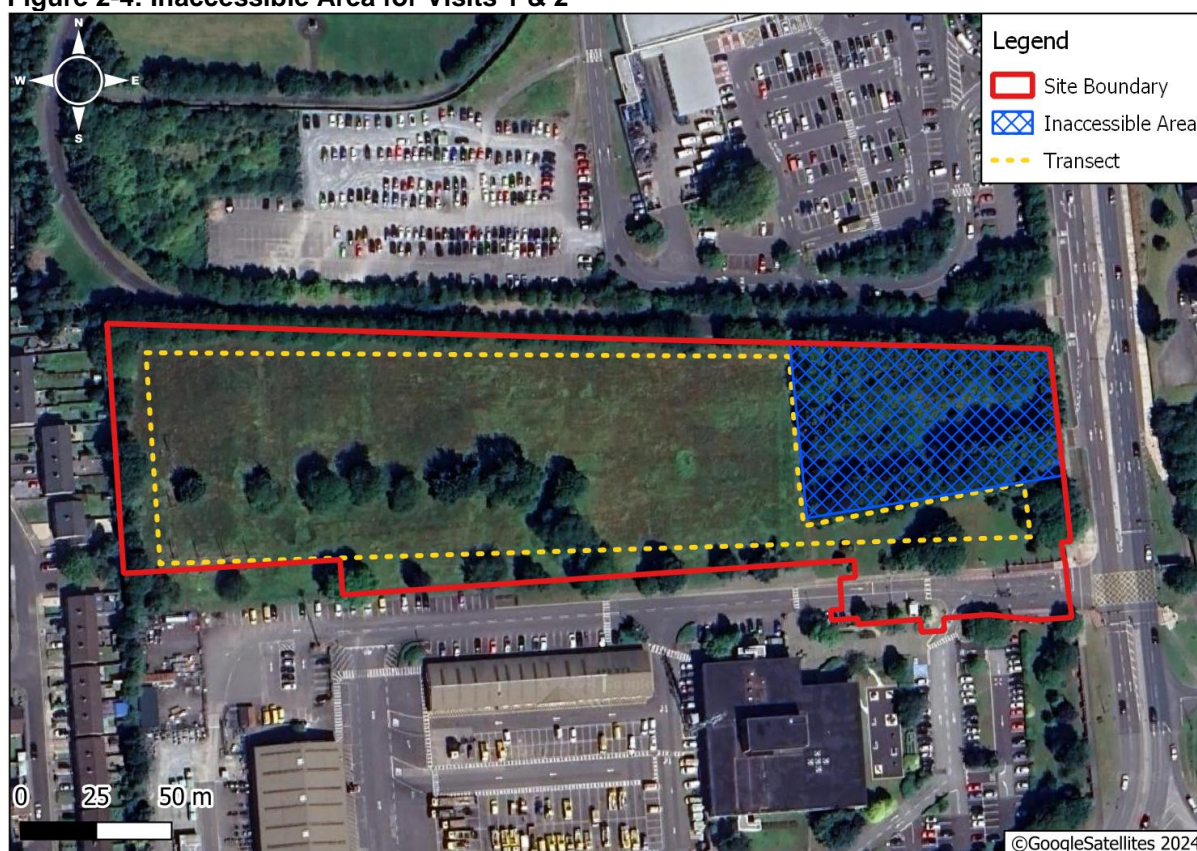
## 2.2.5 Survey Constraints

During the breeding bird surveys, the area of scrub was inaccessible during the first and second breeding bird surveys due to dense vegetation, and therefore, only the outskirts of the scrub were surveyed. Prior to the third and final breeding bird survey, an area of scrub was cleared in the northeast of the Site, this area was cleared to allow access for ground investigation works to take place on the Site. In advance of clearance works, the local NPWS officer was consulted, and it was agreed that under strict supervision, the area could be partially cleared to allow access. Please see Figure 2-4 for location. Additionally, due to access restrictions on the Site, surveys were not undertaken as close to sunrise as possible but

<sup>a</sup> Visits 1 and 2 did not include the area within the scrub in the northeast corner due to lack of accessibility

instead as close to opening of the ESNB site as possible. No other survey limitations were encountered.

**Figure 2-4: Inaccessible Area for Visits 1 & 2**



## 2.3 Avian Receptor Evaluation

The value of the avian receptors at the Site were evaluated using the ecological evaluation guidance given in the National Roads Authority ('NRA') guidance on the assessment of ecological impacts of National Road Schemes [10]. This guidance provides ratings for resources based primarily on geographic context and allows for resources at International, National, County and Local (higher and lower value) levels. Key ecological receptors for assessment are those deemed to be above the 'Local Importance (lower value)' evaluation (see Table 2-4 below).

**Table 2-4: NRA Guidance for Evaluation Criteria relevant to Avian Fauna**

Resource Evaluation	Criteria
International Importance	<p>'European Site' including Special Area of Conservation ('SAC'), Site of Community Importance ('SCI'), Special Protection Area ('SPA'), proposed Special Area of Conservation, or Proposed Special Protection Area ('pSPA').</p> <p>Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971). World Heritage Site (Convention for the Protection of World Cultural &amp; Natural Heritage, 1972).</p> <p>Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).</p> <p>Resident or regularly occurring populations (assessed to be important at the national level) of the following:</p> <ul style="list-style-type: none"> <li>Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive.</li> </ul>

Resource Evaluation	Criteria
National Importance	<p>Site designated or proposed as a Natural Heritage Area ('NHA'), Statutory Nature Reserve, Refuge for Fauna and Flora protected under the Wildlife Acts, or National Park,</p> <p>Resident or regularly occurring populations (assessed to be important at the national level) of the following:</p> <ul style="list-style-type: none"> <li>Species protected under the Wildlife Acts; and / or</li> <li>Species listed on the relevant Red Data list.</li> </ul>
County Importance	<p>County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local Biodiversity Action Plan ('BAP') (if this has been prepared).</p> <p>Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.</p> <p>Resident or regularly occurring populations (assessed to be important at the County level) of the following:</p> <ul style="list-style-type: none"> <li>Species of bird, listed in Annex I and / or referred to in Article 4(2) of the Birds Directive.</li> <li>Species protected under the Wildlife Acts; and / or,</li> <li>Species listed on the relevant Red Data list.</li> </ul>
Local Importance (High Value)	<p>Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP (if this has been prepared).</p> <p>Resident or regularly occurring populations (assessed to be important at the Local level) of the following:</p> <ul style="list-style-type: none"> <li>Species of bird, listed in Annex I and / or referred to in Article 4(2) of the Birds Directive.</li> <li>Species protected under the Wildlife Acts; and / or,</li> <li>Species listed on the relevant Red Data list.</li> </ul>
Local Importance (Low Value)	<p>Species that remain common and widespread.</p> <p>Green-listed species.</p>

## 3 RESULTS

### 3.1 Desk Study

#### 3.1.1 National Biodiversity Data Centre

The NBDC was consulted for records of bird species within 2km of the Site [4]. Table 3-1 below provides a summary of the records of birds that occurred within 2km of the Site at the time of writing this report. The NBDC records were checked on 17<sup>th</sup> December 2024 [4]. The following NBDC 2km grids have been checked: W66J, W66P, W66U, W67F, W67K, W67Q [4].

Only species recorded within the past 10 years were included in Table 4-3. The parameter of 10 years was chosen based on habitat adaption and modification; it is considered that any records over 10 years old are not representative of the current distribution of species populations.

**Table 3-1: NBDC records for bird species within 2km of the Site**

Common Name	Scientific Name	Date of last record	Designation
Barn Swallow	<i>Hirundo rustica</i>	08/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Black-billed Magpie	<i>Pica pica</i>	07/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Blackcap	<i>Sylvia atricapilla</i>	27/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Black-headed Gull	<i>Larus ridibundus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Black-tailed Godwit	<i>Limosa limosa</i>	05/12/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Blue Tit	<i>Cyanistes caeruleus</i>	09/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Chaffinch	<i>Fringilla coelebs</i>	18/02/2021	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Coal Tit	<i>Periparus ater</i>	03/02/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Blackbird	<i>Turdus merula</i>	16/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	02/06/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Buzzard	<i>Buteo buteo</i>	29/11/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List

Common Name	Scientific Name	Date of last record	Designation
Common Chiffchaff	<i>Phylloscopus collybita</i>	19/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Coot	<i>Fulica atra</i>	24/12/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II and III Section I and II Bird Species Birds of Conservation Concern Amber List
Common Cuckoo	<i>Cuculus canorus</i>	25/05/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Greenshank	<i>Tringa nebularia</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Common Kestrel	<i>Falco tinnunculus</i>	19/01/2015	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Common Kingfisher	<i>Alcedo atthis</i>	29/11/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Common Moorhen	<i>Gallinula chloropus</i>	24/12/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Common Pheasant	<i>Phasianus colchicus</i>	12/05/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section III Bird Species Birds of Conservation Concern Green List
Common Redshank	<i>Tringa totanus</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Common Sandpiper	<i>Actitis hypoleucos</i>	18/03/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section III Bird Species Birds of Conservation Concern Red List
Common Snipe	<i>Gallinago gallinago</i>	07/05/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section III Bird Species Birds of Conservation Concern Red List
Common Starling	<i>Sturnus vulgaris</i>	16/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Common Swift	<i>Apus apus</i>	16/07/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List

Common Name	Scientific Name	Date of last record	Designation
Common Wood Pigeon	<i>Columba palumbus</i>	16/04/2023	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III Section I Bird Species Birds of Conservation Concern Green List
Dunlin	<i>Calidris alpina</i>	20/11/2016	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex I Bird Species Birds of Conservation Concern Red List
Dunnock	<i>Prunella modularis</i>	19/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Eurasian Collared Dove	<i>Streptopelia decaocto</i>	16/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Eurasian Curlew	<i>Numenius arquata</i>	20/11/2016	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section II Bird Species Birds of Conservation Concern Red List
Eurasian Jackdaw	<i>Corvus monedula</i>	19/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Eurasian Jay	<i>Garrulus glandarius</i>	29/11/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	05/12/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	24/02/2017	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Eurasian Teal	<i>Anas crecca</i>	02/01/2023	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III Section II Bird Species Birds of Conservation Concern Amber List
Eurasian Treecreeper	<i>Certhia familiaris</i>	06/01/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
European Goldfinch	<i>Carduelis carduelis</i>	25/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
European Greenfinch	<i>Carduelis chloris</i>	24/01/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
European Robin	<i>Erithacus rubecula</i>	16/04/2023	Wildlife Acts 1976 / 2000

Common Name	Scientific Name	Date of last record	Designation
			Birds of Conservation Concern Green List
Goldcrest	<i>Regulus regulus</i>	06/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Great Cormorant	<i>Phalacrocorax carbo</i>	31/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Great Tit	<i>Parus major</i>	19/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Grey Heron	<i>Ardea cinerea</i>	29/03/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Grey Wagtail	<i>Motacilla cinerea</i>	29/11/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Herring Gull	<i>Larus argentatus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Hooded Crow	<i>Corvus cornix</i>	06/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
House Martin	<i>Delichon urbicum</i>	21/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
House Sparrow	<i>Passer domesticus</i>	31/03/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Iceland Gull	<i>Larus glaucoides</i>	13/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Lesser Black-backed Gull	<i>Larus fuscus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Little Egret	<i>Egretta garzetta</i>	12/03/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex I Bird Species Birds of Conservation Concern Green List
Little Grebe	<i>Tachybaptus ruficollis</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Long-tailed Tit	<i>Aegithalos caudatus</i>	20/01/2018	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Mallard	<i>Anas platyrhynchos</i>	19/05/2020	Wildlife Acts 1976 / 2000 EU Birds Directive Annex II Section I and Annex III and Section I Bird Species

Common Name	Scientific Name	Date of last record	Designation
			Birds of Conservation Concern Amber List
Mandarin Duck	<i>Aix galericulata</i>	02/04/2015	Wildlife Acts 1976 / 2000
Mew Gull	<i>Larus canus</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Mistle Thrush	<i>Turdus viscivorus</i>	12/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Mute Swan	<i>Cygnus olor</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Northern Lapwing	<i>Vanellus vanellus</i>	20/11/2016	Wildlife Acts 1976 / 2000 EU Birds Directive Annex II Section II Bird Species Birds of Conservation Concern Red List
Northern Shoveler	<i>Anas clypeata</i>	21/12/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III Section III Bird Species Birds of Conservation Concern Red List
Northern Wheatear	<i>Oenanthe oenanthe</i>	20/03/2018	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Peregrine Falcon	<i>Falco columbarius</i>	25/05/2023	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex I Bird Species Birds of Conservation Concern Green List
Pied Wagtail	<i>Motacilla alba subsp. yarrellii</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Redwing	<i>Turdus iliacus</i>	29/11/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Reed Bunting	<i>Emberiza schoeniclus</i>	12/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Ring-billed Gull	<i>Larus delawarensis</i>	20/03/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Rock Pigeon	<i>Columba livia</i>	18/03/2022	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I Bird Species Birds of Conservation Concern Green List
Rook	<i>Corvus frugilegus</i>	19/05/2020	Wildlife Acts 1976 / 2000

Common Name	Scientific Name	Date of last record	Designation
			Birds of Conservation Concern Green List
Sand Martin	<i>Riparia riparia</i>	28/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Sanderling	<i>Calidris alba</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	12/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Song Thrush	<i>Turdus philomelos</i>	19/05/2020	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Stonechat	<i>Saxicola torquata</i>	20/11/2016	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Tufted Duck	<i>Aythya fuligula</i>	20/03/2020	Wildlife Acts 1976 / 2000 EU Habitats Directive Annex II Section I and Annex III and Section II Bird Species Birds of Conservation Concern Amber List
White-throated Dipper	<i>Cinclus cinclus</i>	29/03/2022	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Green List
Willow Warbler	<i>Phylloscopus trochilus</i>	05/04/2023	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Amber List
Winter Wren	<i>Troglodytes troglodytes</i>	16/04/2023	
Yellowhammer	<i>Emberiza citrinella</i>	08/12/2014	Wildlife Acts 1976 / 2000 Birds of Conservation Concern Red List
Yellow-legged Gull	<i>Larus michahellis</i>	24/05/2022	Wildlife Acts 1976 / 2000
<b>Invasive Bird Species</b>			
Rose-ringed Parakeet	<i>Psittacula krameri</i>	02/10/2024	High Impact Invasive Species

### 3.1.2 Irish Wetland Bird Survey ('I-WeBS')

The I-WeBS data for nearby sites within the vicinity of the Site, Cork Harbour - Douglas Estuary and Garryhesta Gravel Pit, was provided by BirdWatch Ireland on 8<sup>th</sup> April 2024. The records were reviewed in order to gain an understanding into the potential assemblage of bird populations that may utilise the areas within the vicinity of the Site.

The I-WeBS data for wintering seasons between 1994/1995 to 2022/2023 for the Cork Harbour - Douglas Estuary subsite. However, it should be noted that data between 1997/1998 – 1999/2000 was unavailable. A total of 60 species were recorded during this period. However,

during the most recent counts available for the 2022/2023 season, a total of 33 species were recorded.

The I-WeBS data for wintering seasons for 1995/1996, 1997/1998, 1998/1999 and between the years 2005/2006 and 2008/2009 were available for the Garryhesta Gravel Pit site. A total of 20 species were recorded during this period. However, during the most recent counts available for the 2008/2009 season only a total of 10 species were recorded.

None of the species recorded were recorded in numbers that would be considered of international importance. However, several species were recorded in numbers that would be considered to be of national importance, including:

- Shelduck were recorded at numbers of national importance between the 1994/1995, 1995/1996, 1996/1997 and 2000/2001, 2001/2002, 2003/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008, 2009/2010, 2010/2011, 2011/2012 seasons in Cork Harbour – Douglas Estuary;
- Wigeon were recorded at numbers of national importance during the 1994/1995 season in Cork Harbour – Douglas Estuary;
- Teal were recorded at numbers of national importance during the 1995/1996, 2000/2001 and the 2003/2004 seasons in Cork Harbour – Douglas Estuary;
- Great crested grebe were recorded at numbers of national importance during the 1995/1996, 1996/1997 and 2001/2002 seasons in Cork Harbour – Douglas Estuary;
- Little egret were recorded at numbers of national importance during the 2004/2005, 2007/2008, 2009/2010 and 2014/2015 seasons in Cork Harbour – Douglas Estuary;
- Oystercatcher were recorded at numbers of national importance during the 1996/1997 season in Cork Harbour – Douglas Estuary;
- Golden plover were recorded at numbers of national importance during the 1994/1995, 1996/1997, 2000/2001, 2001/2002, 2003/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015/2016, 2017/2018, 2018/2019 and 2021/2022 seasons in Cork Harbour – Douglas Estuary;
- Lapwing were recorded at numbers of national importance during the 1994/1995, 1995/1996, 1996/1997, 2000/2001, 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2007/2008, 2010/2011, 2011/2012, 2013/2014 and 2014/2015 seasons in Cork Harbour – Douglas Estuary;
- Knot were recorded at numbers of national importance during the 2010/2011 season in Cork Harbour – Douglas Estuary;
- Dunlin were recorded at numbers of national importance during all seasons with data available in Cork Harbour – Douglas Estuary;
- Bar-tailed godwit were recorded at numbers of national importance during all seasons with data available except the 1994/1995 and 2023/2021 season in Cork Harbour – Douglas Estuary;
- Curlew were recorded at numbers of national importance during the 1995/1996, 1996/1997, 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2007/2008, 2010/2011, 2011/2012, 2013/2014, 2014/2015 and 2021/2022 seasons in Cork Harbour – Douglas Estuary; and,
- Redshank were recorded at numbers of national importance during the 1995/1996, 1996/1997, 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008,

2009/2010, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2016/2017, 2019/2020, 2020/2021, 2021/2022 and 2022/2023 seasons in Cork Harbour – Douglas Estuary.

It should be noted that these sites are not located within the immediate vicinity of the Site, the nearest records to the Site would be from the Douglas Estuary area which is located ca. 4.8km east of the Site. Garryhesta Gravel Pit is located ca. 8.7km west of the Site. Therefore, these populations of bird species are not located within close proximity to the Site. Furthermore, it should be noted that none of these species identified are considered to occur within this area exclusively.

## **3.2 Field Studies**

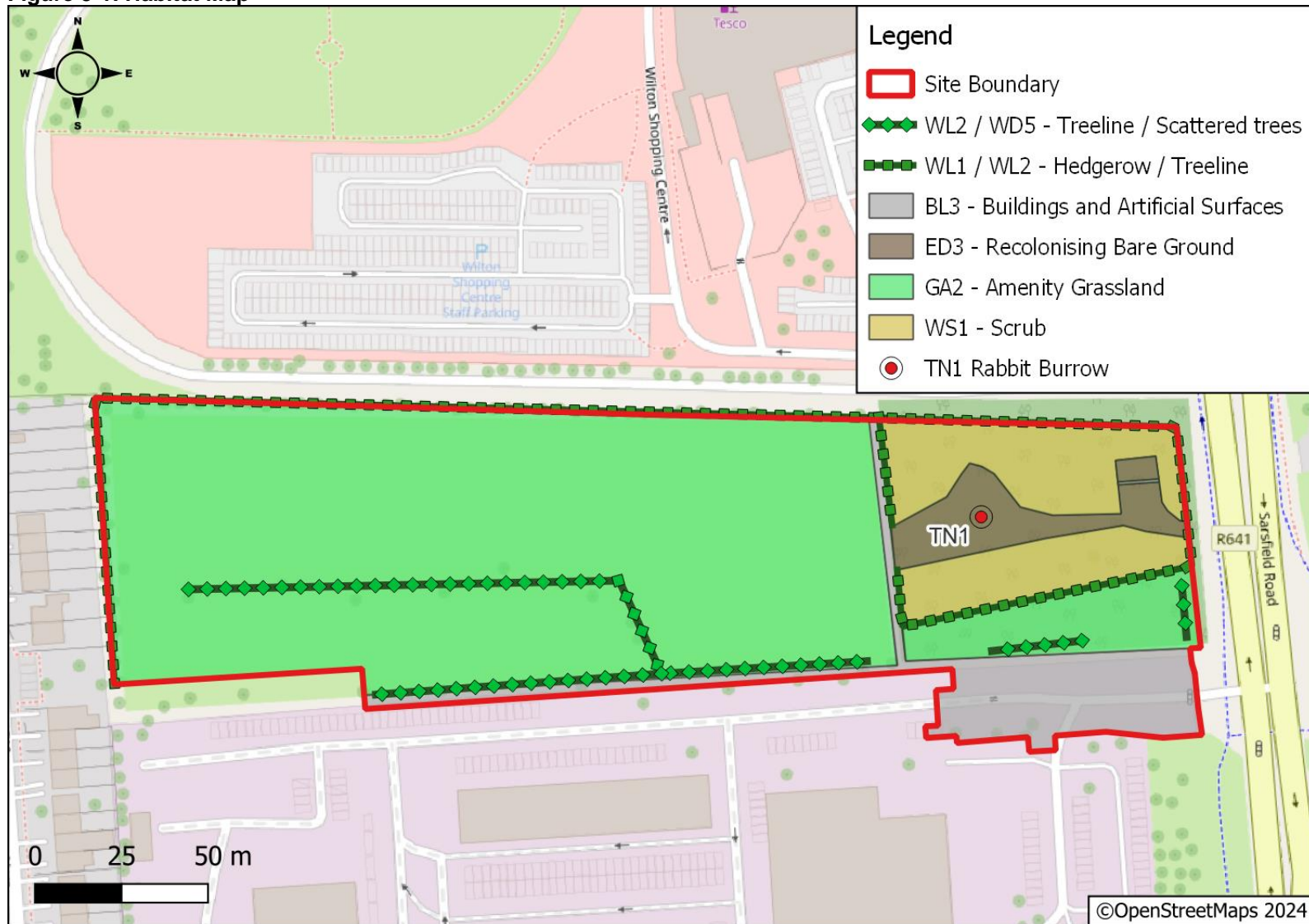
### **3.2.1 Habitat Assessment**

The habitat surveys undertaken at the Site on 7<sup>th</sup> September 2023, 27<sup>th</sup> May 2024 and 27<sup>th</sup> August 2024 identified six habitats onsite:

- Amenity Grassland (GA2);
- Hedgerow / Treeline (WL1 / WL2);
- Scrub (WS1);
- Treeline / Scattered Trees and Parkland (WL2 / WD5);
- Recolonising bare ground (ED3); and,
- Buildings and Artificial Surfaces (BL1).

Figure 3-1 below illustrates the distribution of habitats within the Site.

Figure 3-1: Habitat Map



### 3.2.2 Bird Habitat Assessment

The habitats within the Site were primarily comprised of amenity grassland and scrub. There were also a number of hedgerows / treelines within the Site and bordering the Site.

#### Winter Bird Habitat Assessment

It is considered that the amenity grassland may provide suitable habitat foraging habitat for wintering birds. However, there were no waterbodies onsite or within the vicinity of the Site, and there were no wet grassland / wetland habitats considered suitable for wintering waterbirds or wildfowl. In addition, the north, east and western Site boundaries are surrounded by mature hedgerow / treelines, which may reduce the suitability of the Site for larger waterbirds, such as swans and geese, that require suitable space in order to take flight.

#### Breeding Bird Habitat Assessment

The hedgerow / treelines and areas of scrub were considered to provide suitable nesting and foraging habitat for breeding countryside birds. In addition, the amenity grassland onsite may provide suitable foraging habitat for breeding birds. However, it was noted during the surveys that the amenity grassland was regularly managed / cut. Therefore, it is considered that the grassland is unlikely to provide suitable nesting habitat for ground-nesting bird species. In addition, there are no waterbodies located onsite or within the vicinity of the Site and as such, it is considered that the Site does not have suitable habitat for breeding waterbirds.

### 3.2.3 Wintering Bird Surveys

Table 3-3 contains a summary of the birds recorded onsite and flying over the Site and their status according to the Birds of Conservation Concern in Ireland ('BoCCI'), which is the third assessment of the status of all regularly occurring birds on the island of Ireland [9].

During the wintering bird surveys, a total of 12 species were recorded:

- Five Green-listed BoCCI non-Annex I species— blackbird, hooded crow, magpie, rook and wood pigeon;
- Seven Amber-listed BoCCI, non-Annex I species were recorded – black-headed gull, buzzard, common gull, herring gull, lesser black-backed gull, little gull and starling; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

Of these species, three were a designated species under the Cork Harbour SPA - black-headed gull, common gull, and lesser black-backed hull. In addition, two species can be classified under the designation of '*Wetland and Waterbirds [A999]*' under the Cork Harbour SPA - herring gull and little gull.

Details on the species that were recorded, their abundance and their behaviours are provided in Table 3-3 below.

**Table 3-2: Birds Recorded within the Survey Area during the Wintering Bird Surveys**

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes
			Visit 1	Visit 2	Visit 3	
<b>Green-listed</b>	Blackbird	<i>Turdus merula</i>	1	0	0	Visit 1: An individual was observed flying east over the Site though it did not interact with the Site. Visit 2: No blackbirds were observed during this survey. Visit 3: No blackbirds were observed during this survey
	Hooded Crow	<i>Corvus cornix</i>	7	0	0	Visit 1: Individuals were noted perching on the trees in the middle of the Site. Individuals were noted flying northwest, north, south and east over the Site but not interacting with it. Visit 2: No hooded crows were observed during this survey. Visit 3: No hooded crows were observed during this survey.
	Magpie	<i>Pica pica</i>	4	0	0	Visit 1: Individuals were observed flying and perching on trees in the middle of the Site. An individual was noted flying from a tree in the centre of the Site and flying north over the Site. Visit 2: No magpies were observed during this survey. Visit 3: No magpies were observed during this survey.
	Rook	<i>Corvus frugilegus</i>	32	0	0	Visit 1: An individual was observed perching on a tree in the western boundary of the Site. Individuals were noted flying above the Site, though they did not interact with it. Visit 2: No rooks were observed during this survey. Visit 3: No rooks were observed during this survey
	Woodpigeon	<i>Columba palumbus</i>	19	0	0	Visit 1: Individuals were noted interacting with the trees in the middle of the Site. They were flying from the south, north and southeast and perched on the trees. During the transect 11 individuals were flushed from the trees in the centre of the Site. Three individuals were noted flying northeast over the Site but not interacting with it. Visit 2: No woodpigeons were observed during this survey.

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes
			Visit 1	Visit 2	Visit 3	
						Visit 3: No woodpigeons were observed during this survey.
Amber-listed	Black-headed Gull	<i>Larus ridibundus</i>	1	6	3	Visit 1: An individual was noted flying west over the Site but did not interact with the Site. Visit 2: Individuals were observed flying west and north over the Site but did not interact with it. Visit 3: Individuals were noted flying north, east, southwest and south over the Site but did not interact with it.
	Buzzard	<i>Buteo buteo</i>	0	1	0	Visit 1: No buzzards were observed during this survey. Visit 2: An individual was perched on a tree on the western boundary of the Site and flew northeast. Visit 3: No buzzards were observed during this survey.
	Common Gull	<i>Larus canus</i>	0	4	2	Visit 1: No common gulls were observed during this survey. Visit 2: Individuals were observed flying south over the Site but did not interact with it. Visit 3: An individual was noted flying south over the Site. Another individual was noted flying southwest over the Site. They did not interact with the Site.
	Herring Gull	<i>Larus argentatus</i>	56	4	3	Visit 1: Individuals were observed flying west, south, north and circling over the Site but did not interact with it. Visit 2: Individuals were observed flying west, south, and north over the Site but did not interact with it. Visit 3: Individuals were noted flying north and south over the Site but did not interact with the Site.

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes
			Visit 1	Visit 2	Visit 3	
	Lesser Black-backed Gull	<i>Larus fuscus</i>	0	9	2	<p>Visit 1: No lesser black-backed gulls were observed during this survey.</p> <p>Visit 2: Individuals were observed flying east, west, northwest, south, southeast and north over the Site but did not interact with it.</p> <p>Visit 3: An individual was noted flying south over the Site. Another individual was noted flying northeast over the Site. They did not interact with the Site.</p>
	Little Gull	<i>Larus canus</i>	0	0	2	<p>Visit 1: No little gulls were observed during this survey.</p> <p>Visit 2: No little gulls were observed during this survey.</p> <p>Visit 3: An individual was noted flying north over the Site. Another individual was noted flying northeast over the Site. Both did not interact with the Site.</p>
	Starling	<i>Sturnus vulgaris</i>	~80	0	0	<p>Visit 1: Approximately 80 individuals were observed circling over the Site and flying south though they did not interact with the Site.</p> <p>Visit 2: No starlings were observed during this survey.</p> <p>Visit 3: No starlings were observed during this survey.</p>

Table 3-3 illustrates the distribution of each species within the zones of the fields of the survey area. As shown in the table, a majority of the species were identified within the boundary zone of the fields.

**Table 3-3: Distribution of the Recorded Species within each Zone during the Winter Bird Surveys**

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Presence within each Zone		
			Boundary	Margin	Interior
<b>Green-listed</b>	Blackbird	<i>Turdus merula</i>	Flying over the Site		
	Hooded Crow	<i>Corvus cornix</i>	Present		
	Magpie	<i>Pica pica</i>	Present		
	Rook	<i>Corvus frugilegus</i>	Present		
	Woodpigeon	<i>Columba palumbus</i>	Present		
<b>Amber-listed</b>	Black-headed Gull	<i>Larus ridibundus</i>	Flying over the Site		
	Buzzard	<i>Buteo buteo</i>	Present		
	Common Gull	<i>Larus canus</i>	Flying over the Site		
	Herring Gull	<i>Larus argentatus</i>	Flying over the Site		
	Lesser Black-backed Gull	<i>Larus fuscus</i>	Flying over the Site		
	Little Gull	<i>Larus canus</i>	Flying over the Site		
	Starling	<i>Sturnus vulgaris</i>	Flying over the Site		

During the winter bird surveys, flocks of birds were noted flying over the Site. In the winter, birds tend to flock together to increase their opportunity to find food sources that another bird has already located and to maintain heat [11].

### 3.2.4 Breeding Bird Surveys

Table 3-4 contains a summary of the birds recorded onsite and their status according to the Birds of Conservation Concern in Ireland ('BoCCI'), which is the third assessment of the status of all regularly occurring birds on the island of Ireland [12].

During the breeding bird surveys, a total of 18 species were recorded:

- 14 Green-listed BoCCI non-Annex I species – blackbird, blackcap, blue tit, chaffinch, dunnock, goldfinch, great tit, hooded crow, magpie, robin, rook, song thrush, wood pigeon and wren;
- Three Amber-listed BoCCI, non-Annex I species were recorded – goldcrest, swallow and starling;
- One Amber BoCCI listed Annex species was recorded - mallard; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

It should be noted that none of these species recorded were classified as designated species under the Cork Harbour SPA. However, one species that was recorded flying over the Site,

mallard, can be classified as '*Wetland and Waterbird [A999]*' which is designated under the Cork Harbour SPA.

Of the species recorded six were classified as '*Confirmed Breeding*,' blackbird, goldcrest, hooded crow, rook, woodpigeon and wren (see Table 3-4 below). In addition, nine other species were classified as '*Possibly Breeding*' and three species were classified as non-breeding. No Red-listed BoCCI were recorded.

Details on the species that were recorded, their abundance and their behaviours are provided in Table 3-4 below.

**Table 3-4: Birds Recorded within the Survey Area during the Breeding Bird Surveys**

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes	Breeding Status
			Visit 1	Visit 2	Visit 3		
Green-listed	Blackbird	<i>Turdus merula</i>	7	6	7	<p>Visit 1: Individuals were noted foraging in the grass south of the hedgerow / treeline in the southeast of the Site. An individual was foraging and perching on the ground in the area of scrub. Individuals were also noted perching and calling from the trees in the central area of the western area of the Site. An individual was noted carrying nest building materials adjacent to the northern boundary of the Site. Chicks were heard calling from a tree amongst the scattered trees in the western area of the Site.</p> <p>Visit 2: Individuals were noted foraging on the grassland and flushed from it in the eastern area of the Site. An individual was noted flying southeast over the Site.</p> <p>Visit 3: Individuals were noted foraging in the grassland in the southeast of the Site. Individuals were noted perching on trees and flying in the scrub and in the western area of the Site.</p>	Confirmed Breeding
	Blackcap	<i>Sylvia atricapilla</i>	0	0	2	<p>Visit 1: No blackcaps were observed during this survey.</p> <p>Visit 2: No blackcaps were observed during this survey.</p> <p>Visit 3: Individuals were noted calling from the hedgerow / treelines in the northern and western boundary of the Site.</p>	Possibly breeding
	Blue Tit	<i>Cyanistes caeruleus</i>	2	1	5	<p>Visit 1: A pair were noted calling and perching in a tree in the southwest of the Site.</p> <p>Visit 2: An individual was noted perching on the hedgerow / treeline in the northern boundary of the Site.</p> <p>Visit 3: Individuals were noted calling and perching in the hedgerow / treeline on the northern boundary, the hedgerow / treeline in the southeastern section of the Site and the area of scrub.</p>	Possibly Breeding
	Chaffinch	<i>Fringilla coelebs</i>	0	2	4	<p>Visit 1: No chaffinches were observed during this survey.</p> <p>Visit 2: Individuals were noted calling and perching from the hedgerow / treeline in the southeast corner of the Site.</p>	Possibly Breeding

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes	Breeding Status
			Visit 1	Visit 2	Visit 3		
						Visit 3: Individuals were noted foraging and calling in the treelines in the south of the Site and the northern hedgerow / treeline.	
	Dunnock	<i>Prunella modularis</i>	0	1	0	Visit 1: No dunnocks were observed during this survey. Visit 2: An individual was noted calling and perching in the area of scrub in the northeastern section of the Site. Visit 3: No dunnocks were observed during this survey.	Possibly breeding
	Goldfinch	<i>Carduelis carduelis</i>	0	0	21	Visit 1: No goldfinches were observed during this survey. Visit 2: No goldfinches were observed during this survey. Visit 3: Two individuals were noted calling from the hedgerow / treeline in the northern boundary of the Site and 12 individuals were noted calling and perching on a tree in the centre of the southern area of the Site. Seven individuals were foraging in the grassland in the southeast of the Site.	Possibly breeding
	Great Tit	<i>Parus major</i>	2	2	0	Visit 1: Individuals were noted alarm calling from the southern section of the hedgerow / treeline on the western boundary of the Site. Visit 2: An individual was noted calling and perching in the area of scrub on the northwest of the Site. Another individual was noted calling from the southern section of the hedgerow/ treeline on the eastern boundary. Visit 3: No great tits were observed during this survey.	Possibly Breeding
	Hooded Crow	<i>Corvus cornix</i>	2	2	0	Visit 1: An individual was noted perching and alarm calling from the western hedgerow / treeline. Another individual was alarm calling and flushed from a tree in the southwest of the Site. Visit 2: Individuals were calling, flying and landed on a tree in the centre of the Site. A large nest was observed in this tree utilised by a hooded crow. Visit 3: No hooded crows were observed during this survey.	Confirmed Breeding

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes	Breeding Status
			Visit 1	Visit 2	Visit 3		
	Magpie	<i>Pica pica</i>	1	3	0	<p>Visit 1: An individual was flushed from the hedgerow / treeline in the northeast of the Site.</p> <p>Visit 2: Individuals were noted calling from the hedgerow / treeline on the northern boundary of the Site.</p> <p>Visit 3: No magpies were observed during this survey.</p>	Possibly Breeding
	Robin	<i>Erithacus rubecula</i>	8	7	3	<p>Visit 1: An individual was noted calling and perching in the centre of the northern hedgerow / treeline. Another individual was noted foraging, perching on the ground and flushed from the same area. An individual was observed carrying nest building materials in the south of the Site. An individual was noted perching on a tree in the southeast of the Site. Four individuals were noted foraging in grassland in the southeast of the Site.</p> <p>Visit 2: Individuals were noted calling and perching the area of scrub in the northeastern section of the Site and on the fence bordering the northern boundary of the Site. Individuals were noted calling from the hedgerow / treeline in the western boundary. An individual was noted carrying nest building materials in the southeastern section of the Site. Another individual was noted foraging the same area.</p> <p>Visit 3: Individuals were noted calling and foraging in the southeastern area of the Site and from a tree in the centre of the Site.</p>	Possibly Breeding
	Rook	<i>Corvus frugilegus</i>	0	1	2	<p>Visit 1: No rooks were observed during this survey.</p> <p>Visit 2: An individual was noted alarm calling from the hedgerow / treeline in the southeastern section of the Site. A large nest was observed in this hedgerow / treeline utilised by a rook.</p> <p>Visit 3: Individuals were noted calling from the hedgerow / treeline in the southeast of the Site.</p>	Confirmed Breeding

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes	Breeding Status
			Visit 1	Visit 2	Visit 3		
	Song Thrush	<i>Turdus philomelos</i>	2	1	3	<p>Visit 2: Two individuals were noted calling from the hedgerow / treeline in the southeast of the Site.</p> <p>Visit 2: An individual was noted flying northeast over the Site.</p> <p>Visit 3: An individual was noted calling and perching from a tree in the centre of the Site and from the treeline west of the scrub.</p>	Possibly Breeding
	Woodpigeon	<i>Columba palumbus</i>	9	11	5	<p>Visit 1: Individuals were flushed from trees throughout the Site. Two individuals were noted calling from the hedgerow / treeline in the southeast of the Site.</p> <p>Visit 2: Individuals were noted foraging on the grassland, perching on trees, and flushed from them during the survey. An individual was observed on a nest in an oak tree in the treeline in the southeast corner of the Site.</p> <p>Visit 3: Individuals were noted calling and flushed from hedgerow / treeline in the northern boundary of the Site and trees in the southwestern and southeastern areas of the Site.</p>	Confirmed Breeding
	Wren	<i>Troglodytes troglodytes</i>	8	5	6	<p>Visit 1: Individuals were noted calling and alarm calling from the area of scrub, northwestern and southeastern hedgerow / treeline. A juvenile was also heard calling from hedgerow / treeline in the northern boundary of the Site.</p> <p>Visit 2: Individuals were noted calling from the area of scrub in the northwestern section of the Site and trees in the southwestern area of the Site. Individuals were noted calling from the hedgerow / treeline in the western boundary of the Site.</p> <p>Visit 3: Individuals were noted calling from the area of scrub, the hedgerow / treeline in the northern area of the Site and the hedgerow / treeline in the southeastern section of the Site.</p>	Confirmed Breeding
Amber-listed	Goldcrest	<i>Regulus regulus</i>	1	2	2	<p>Visit 1: An individual was noted calling from a nest in a tree in the southeastern area of the Site.</p> <p>Visit 2: Individuals were noted calling from the trees in the centre of the Site and the western hedgerow / treeline.</p>	Confirmed Breeding

BoCCI Conservation Status (EU Birds Directive Annex Species)	Species	Latin Name	Number Recorded			Notes	Breeding Status
			Visit 1	Visit 2	Visit 3		
						Visit 3: Individuals were noted calling from the area of scrub in the northeast of the Site.	
	Mallard	<i>Anas platyrhynchos</i>	3	0	0	Visit 1: Two males and one female were observed flying north over the Site but did not interact with the Site. Visit 2: No mallards were observed during this survey. Visit 3: No mallards were observed during this survey.	Non-breeding
	Swallow	<i>Hirundo rustica</i>	0	2	2	Visit 1: No swallows were observed during this survey. Visit 2: Individuals were noted foraging over the grassland in the centre of the Site. Visit 3: Individuals were noted foraging over the grassland in the southeastern area of the Site.	Non-breeding
	Starling	<i>Sturnus vulgaris</i>	0	0	41	Visit 1: No starlings were observed during this survey. Visit 2: No starlings were observed during this survey. Visit 3: One individual was noted foraging in the southeastern area of the Site. 40 individuals were noted foraging and flushed from the Site in the southeastern section.	Non-breeding

## 4 SITE ASSESSMENT

During the winter bird surveys, a total of 12 avian species were recorded within the survey area. During the breeding bird surveys, a total of 18 avian species were recorded within the survey area. During all of the surveys undertaken at the Site, a total of 24 bird species were recorded onsite and flying over the Site.

The species recorded are considered to be common within the Irish countryside and none of these species were present in significant numbers.

### 4.1 Winter Bird Assessment

As mentioned in Section 3.2.1, the Site was comprised of amenity grassland, scrub, and hedgerow / treelines that surround the Site. Within the wider area, there were office buildings, residential properties, a shopping centre, and a busy road.

Of the 20 species recorded at numbers of national importance from the I-WeBS data, only one species have been recorded by the NBDC within 2km of the Site within the last 10 years – little egret [4]. However, little egret typically winters in a variety of wetland habitats, including shallow lakes, riverbanks, lagoons and coastal estuaries [13]. There were no water features located onsite and there were no wetland or wet grassland habitats located onsite. Therefore, it is not considered that the Site or the surrounding area is a site of importance for little egret.

During the winter bird surveys five Green-listed BoCCI non-Annex I species and seven Amber-listed BoCCI non-Annex I species were recorded. The wetland birds protected under Cork Harbour SPA observed during the survey include black-headed gull, common gull, herring gull, lesser black-backed gull and little gull, these are all amber listed species. All of these species were observed flying over the Site and did not interact with the Site during the surveys.

It should be noted that the majority of birds identified onsite were observed within the boundary area of the Site (i.e., hedgerow / treelines) or flying over the Site. It should be noted that the majority of the hedgerow / treelines within the Site will be retained as part of the Proposed Development with the exception of the western hedgerow / treeline and the trees in the centre of the Site.

It is considered the levels of disturbance at the ESNB site to the south of the Site and Wilton Shopping Centre to the north of the Site would deter any designated birds utilising the Site due to levels of vehicular traffic and anthropogenic activity.

In addition, wintering birds and wildfowl species tend to prefer habitats similar to those in Cork Harbour SPA such as mudflats, salt marshes and wet grassland, none of which were located within the Site. Therefore, it is concluded that the onsite habitats were not optimal for wintering bird species. Furthermore, suitable habitats within Cork Harbour are separated from the Site by Cork City and its suburbs along with associated road infrastructure. Therefore, it can be considered that the Site is not of importance for wintering birds and no mitigation measures for wintering birds is necessary as part of the Proposed Development.

### 4.2 Breeding Bird Assessment

During the breeding bird surveys, a total of 18 bird species were recorded, and of these species:

- Six species were confirmed to be breeding within the survey area – blackbird, goldcrest, hooded crow, rook, woodpigeon and wren;
- Nine species displayed territorial behaviours that were classified as possibly breeding within the hedgerow / treelines – blackcap, blue tit, chaffinch, dunnock, goldfinch, great tit, magpie, robin and song thrush; and,
- Three species were categorised as non-breeding – mallard, swallow and starling.

None of the species recorded were considered to be of International, National or County Importance, according to the receptor evaluation set out in Table 2-4.

However, based on the fact that goldcrest, an amber-listed species, were observed breeding onsite and other green-listed species were recorded breeding onsite, the Site can be concluded to be of Local Importance (High Value).

The majority of birds identified within the study area were observed within the hedgerows / treelines and scrub for nesting / possible nesting and were observed foraging within the amenity grassland. It should be noted that the majority of the hedgerow / treelines within the Site will be retained as part of the Proposed Development with the exception of the western hedgerow / treeline and the trees in the centre of the Site.

Overall, the Site is considered to be of local importance for breeding bird species given the fact that six species were confirmed to be breeding within the survey area. It should be noted, however, that breeding birds within the Site currently experience high levels of anthropogenic activities due to the ESNB site south of the Site, Wilton shopping centre north of the Site and Sarsfield Road to the east of the Site.

## **5 IMPACT ASSESSMENT AND MITIGATION**

This section will assess potential impacts, if any, on breeding and wintering bird species within the Site and the vicinity of the Site and will put forward mitigation measures, if required, that will be implemented as part of the Proposed Development to ensure no adverse effects occur to any bird species.

### **5.1 Potential Impacts**

#### **5.1.1.1 Wintering Bird Species**

It is not considered that the Site is of importance for wintering bird species based on the desk-based assessment, the habitats present onsite, and the wintering bird surveys conducted on the Site.

As discussed above, wintering waterbird and wildfowl species tend to preference habitats similar to those present along the river estuaries of the Rivers Lee, Douglas, Owenboy and Owenacurra including mudflats, marshlands and coastal grasslands, all of which are located within the wider area. Therefore, it is considered that wintering waterbird species would be likely to utilise these areas as opposed to the onsite habitats. In addition, the onsite habitats may provide suitable foraging and roosting habitat for wintering countryside bird species; however, given the presence of more suitable habitats within the wider area, it is considered that the Site is not a site of importance for wintering bird species.

Overall, the required vegetation clearance and loss of amenity grassland onsite may result in a loss of potential foraging grounds to wintering bird species. However, considering that the majority of the species recorded during the surveys did not interact with the Site, the Site is not considered of high importance for wintering bird species.

Therefore, it is considered that the Proposed Development will result in a negligible impact on wintering bird species.

#### **5.1.1.2 Breeding Birds**

As mentioned in Section 4 above, the Site is considered to provide suitable nesting habitats for breeding birds through the treelines / hedgerows and scrub and provides suitable foraging habitats for breeding birds through the amenity grassland, scrub and hedgerow / treelines. Additionally, given the confirmed breeding onsite, the Site is considered to be of local importance for breeding birds.

However, it is considered that birds utilising the Site would be habituated to high levels of anthropogenic activity given the close proximity of the Site to Sarsfield Road and the ESBN site. However, it is still considered that birds within the immediate locality of the Site may be subject to some temporary disturbance during construction. However, this is not considered likely to be significant, birds are highly mobile and therefore will move away from disturbances. It can therefore be concluded that should any birds be disrupted during any of the works they will move to a suitable area elsewhere.

However, as part of the Proposed Development, the following clearance / removal works will be required:

- Removal of hedgerow / treeline on the northern, northeastern and western boundaries;
- Removal of scrub vegetation; and,
- Removal of trees in the centre and south of the Site.

For full details, refer to the Landscape Strategy Report prepared by Park Hood Chartered Landscape Architects submitted as part of this planning application.

Studies have shown that traffic noise can result in acoustic interference or masking of bird songs and that bird abundance, occurrence and species richness is reduced near roads so the loss of these hedgerows / treelines is not considered to be significant [14] [15] [16]. Regardless, there will be a loss of nesting habitat for bird species and mitigation measures will be required in order to ensure no impacts occur to breeding birds during the vegetation removal.

## **5.2 Mitigation Measures**

### **5.2.1 Construction Phase**

#### **5.2.1.1 Winter Birds**

No mitigation measures are considered necessary for wintering birds during the Construction Phase.

#### **5.2.1.2 Breeding Birds**

In order to ensure that no disturbances occur to breeding birds, the following measures will be implemented:

- Vegetation clearance works will take place outside the breeding bird season (1<sup>st</sup> March to 31<sup>st</sup> August). This is as per Section 40 of the Wildlife Act 1976, as amended by Section 46 of the Wildlife (Amended) Act 2000, which states that the cutting, grubbing, burning or destruction by other means of vegetation growing on uncultivated lands or hedgerows or ditches will be restricted during the besting and breeding seasons for birds and wildlife;
- In the event that demolition or vegetation clearance works need to be undertaken within the main breeding season, the following measures will be implemented:
  - The project ECoW will undertake appropriate breeding bird surveys to identify any nesting birds within the Site;
  - The project ECoW will consult with the NPWS;
  - Prior to vegetation clearance on the Site, the project ECoW will inspect the Site; and,
  - All vegetation removal will be undertaken in a systematic manner under the strict supervision of the ECoW.
- In the unlikely event that birds nest within the active working area during the works, all works will cease with immediate effect and will not resume until the project ECoW has been consulted.

Furthermore, in order to ensure that no impacts occur to breeding bird species as a result of habitat loss, the following enhancement measures will be implemented:

- Landscape Planting; and,
- Bird boxes.

See Section 5.3 below for further details.

### **5.2.2 Operational Phase**

No mitigation measures are considered necessary for breeding or wintering birds during the Operational Phase.

## 5.3 Ecological Enhancement Measures

### 5.3.1 Landscape Planting

A comprehensive Landscape Plan has been developed for the Proposed Development, which includes a large public realm component based on the retention of mature trees and the orientation of the development. For full details, refer to the Landscape Strategy Report prepared by Park Hood Chartered Landscape Architects submitted as part of this planning application.

### 5.3.2 Bird Boxes

A variety of bird nest boxes designed to attract a variety of nesting bird species will be erected on suitable trees within the Site. The creation of nesting habitat, along with the creation of species rich habitat will encourage an abundance of invertebrate life (a potential food source) will be beneficial to local birds. General bird boxes designed to cater for a variety of species will be used, the number and location of which will be specified by an ecologist. Refer to the examples provided in Figure 5-1.

An example is the 1B Schwelger Nest Box - This nest box will attract a wide range of species and is available with different entrance hole sizes to prevent birds from competing with each other for the boxes.

The exact location of the bird boxes will be determined by an experienced ecologist after the completion of the proposed works. This is to allow the ecologist to assess the exact conditions that have been created and thus to ensure that the bird boxes are sited in the most appropriate location possible. However, it is recommended that bird boxes be facing between north and south-east to avoid strong winds, rain and sunshine. In addition, bird boxes should be tilted slightly forward to ensure that rain runs off the top and there should be a clear flight path to access the nestbox hole. Also, bird boxes with a hole should be placed ca. 2-4m off the ground, whereas open-fronted bird boxes should be placed lower than 2m among dense vegetation where predators will not easily see it.

It should be noted that the distance between nest boxes can vary. Species such as house sparrow and starling have a preference for nesting in colonies and therefore the bird boxes should be placed closer to each other, whereas species robins and tits can be highly territorial and therefore the nest boxes should be separate by a greater distance.

**Figure 5-1: Bird Box Examples**



## 6 CONCLUSIONS

Overall, 12 species were identified during the wintering bird survey and 18 species were recorded during the breeding bird surveys conducted onsite.

### 6.1 Winter Bird Surveys

During the winter bird surveys, a total of 12 bird species were recorded:

- Five Green-listed BoCCI non-Annex I species— blackbird, hooded crow, magpie, rook and wood pigeon;
- Seven Amber-listed BoCCI, non-Annex I species were recorded – black-headed gull, buzzard, common gull, herring gull, lesser black-backed gull, little gull and starling; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

Of the species recorded, five of these are species recorded - black-headed gull, common gull, herring gull, lesser black-backed gull and little gull -are designated under Cork Harbour SPA. Black-headed gull, herring gull and little gull are categorised under '[A99 Wetland and Waterbirds]'. However, these species were observed flying over the Site and did not interact with it.

The winter bird surveys did not identify any roosting sites or potential roosting sites on the Site.

Overall, it is considered that the Proposed Development will not have a negative impact on wintering birds given that they did not utilise the Site during the surveys and there are much more suitable habitats such as mudflats, salt marshes and wet grassland elsewhere.

### 6.2 Breeding Bird Surveys

During the breeding bird surveys, 18 bird species were recorded:

- 14 Green-listed BoCCI non-Annex I species – blackbird, blackcap, blue tit, chaffinch, dunnock, goldfinch, great tit, hooded crow, magpie, robin, rook, song thrush, wood pigeon and wren;
- Four Amber-listed BoCCI, non-Annex I species were recorded – goldcrest, mallard, swallow and starling; and,
- No Red-listed BoCCI, non-Annex I species were recorded.

Of the species recorded – six species were recorded as confirmed breeding - blackbird, goldcrest, hooded crow, rook, woodpigeon and wren. Additionally, nine species displayed territorial behaviours and were categorised as possibly breeding and three were recorded as non-breeding.

Based on the breeding birds surveys, it was concluded that the hedgerow / treelines bordering the Site, the trees scattered throughout the Site and the scrub are suitable for a range of common nesting bird species, and the amenity grassland is suitable for foraging breeding birds.

The Proposed Development will require the removal of the majority of hedgerow / treeline, the area of scrub and the trees in the centre and south of the Site and will be constructed on the amenity grassland. However, appropriate mitigation measures will be implemented to ensure no impacts occur to breeding birds utilising the Site and it is considered that the removal of these habitats will result in a short-medium term loss of nesting and foraging habitat. However, the landscape planting will provide suitable nesting and foraging habitat once it has been established.

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