

# Floodlighting of the Running Track & Soccer Pitch at Kilbogget Park, Dún Laoghaire, Co. Dublin

Ecological Impact Assessment

20 August 2024

Project number: 2022s1606

Dún Laoghaire Rathdown  
County Council

# JBA Project Manager

Patricia Byrne  
 Block 660 Unit 8  
 The Plaza  
 Greenogue Business Park  
 Rathcoole, Dublin

## Revision History

Revision Ref / Date Issued	Amendments	Issued to
S3-P01 / 25-07-2024	Draft Report	Eoin O'Brien - Dún Laoghaire Rathdown County Council
A3-C01 / 20-08-2024	Final Report	Eoin O'Brien - Dún Laoghaire Rathdown County Council

## Contract

This report describes work commissioned by Eoin O'Brien of Dún Laoghaire Rathdown County Council, by an email dated 9th December 2022. Michael Coyle of JBA Consulting carried out this work.

Prepared by ..... Michael Coyle B.A (Hons), MSc  
 Ecologist

Reviewed by ..... Patricia Byrne BSc (Hons), PhD, MCIEEM  
 ..... Principal Ecologist

## Purpose

This document has been prepared as a Final Report for Dún Laoghaire Rathdown County Council. JBA Consulting accepts no responsibility or liability for any use that is made of this document other than by Dún Laoghaire Rathdown County Council for the purposes for which it was originally commissioned and prepared.

JBA Consulting has no liability regarding the use of this report except to Dún Laoghaire Rathdown County Council.

## Copyright

© JBA Consulting Engineers and Scientists Limited 2024

## Carbon Footprint

A printed copy of the main text in this document will result in a carbon footprint of 355g if 100% post-consumer recycled paper is used and 451g if primary-source paper is used. These figures assume the report is printed in black and white on A4 paper and in duplex. JBA is aiming to reduce its per capita carbon emissions.

# Contents

1	Introduction .....	1
1.1	Aims.....	1
1.2	The Existing Site.....	1
2	Project Description.....	2
2.1	The 'Project' .....	2
2.1.1	Duration of the Works .....	2
2.1.2	Excavation requirements .....	2
3	Methodology .....	3
3.1	The EclA Team.....	3
3.2	Policy and Legislation .....	3
3.3	Methods.....	3
3.4	Guidance .....	3
3.5	Baseline.....	4
3.5.1	Zone of Influence .....	5
3.5.2	Field Surveys .....	5
3.5.3	Water Framework Directive .....	5
3.5.4	Water Framework Status and Objectives .....	6
3.6	Screening of Ecological Features .....	6
3.7	Assessment of the Effects on Features .....	6
3.8	Valuation of Receptors .....	6
3.8.1	Magnitude of Impacts .....	8
3.8.2	Significance of impacts .....	10
3.8.3	Residual Impacts .....	13
3.9	Cumulative Impacts .....	13
3.10	Limitations and Constraints .....	13
4	Baseline Conditions .....	14
4.1	Desk-based Assessment.....	14
4.1.1	Designated Sites.....	14
4.1.2	Screening of designated sites.....	19
4.1.3	Protected Species.....	19
4.1.4	Invasive Non-native Species.....	19
4.2	Water Framework Directive .....	20
4.2.1	Surface Water Status.....	20
4.2.2	Groundwater Status.....	21
4.3	Site Visits .....	23
4.4	Habitats .....	23
4.4.1	Buildings and Artificial Surfaces (BL3).....	23
4.4.2	Amenity Grassland (GA2).....	24
4.4.3	(Mixed) broadleaved woodland - WD1.....	25
4.4.4	Treelines - (WL1).....	25
4.4.5	Dry meadows and grassy verges (GS2) .....	25
4.5	Protected Flora .....	27
4.6	Protected Fauna .....	27
4.6.1	Mammals .....	27
4.6.2	Bats .....	27
4.6.3	Breeding Birds .....	32
4.6.4	Wintering Birds .....	32
4.6.5	Amphibians.....	35
4.6.6	Reptiles.....	35
4.6.7	Invertebrates.....	36
4.7	Invasive Non-native Species (On-site).....	36
4.8	Screening of Designated Sites & Ecological Features.....	36

5	Other Relevant Plans and Projects .....	39
5.1	Cumulative Effects .....	39
5.2	Plans .....	39
5.2.1	Dún Laoghaire Rathdown County Development Plan 2022-2028.....	39
5.2.2	Greater Dublin Drainage Strategy.....	39
5.2.3	River Basin Management Plan for Ireland 2018-2021 / 2022-2027 .....	39
5.3	Other Projects.....	40
5.3.1	Other Projects.....	41
5.4	Summary .....	41
6	Impact Assessment .....	48
6.1	Introduction.....	48
6.2	Do Nothing Scenario.....	48
6.3	Construction Phase .....	48
6.3.1	Habitats .....	48
6.3.2	Species.....	49
6.4	Operational Phase .....	50
6.5	Invasive Non-native Species.....	50
6.6	In-combination Impacts.....	50
6.7	Summary .....	50
7	Mitigation .....	51
7.1	Mitigation for Project Construction Phase.....	51
7.1.1	Site Compound.....	51
7.1.2	Pollution Control and Spill Prevention.....	51
7.1.3	General Avoidance Measures.....	52
7.1.4	Root compaction and limb damage avoidance .....	52
7.1.5	Tree replacement.....	52
7.1.6	Meadow Grassland Protection.....	52
7.2	Operational Mitigation.....	53
7.2.1	Lighting Column Orientation .....	53
7.2.2	Scheduling of the floodlights .....	56
7.3	Additional Biodiversity Recommendations for the Operational Phase .....	56
7.3.1	Installation of Bat Boxes .....	56
7.3.2	Bird boxes.....	57
7.3.3	All Ireland Pollinator Plan.....	57
8	Residual Impact .....	58
8.1	Construction Phase .....	58
8.2	Operational Phase .....	58
9	Summary of Impact Assessment.....	59
9.1	EclA Table .....	59
9.2	Cumulative Impacts .....	62
10	Conclusion .....	63

## List of Figures

Figure 1-1: Site location and boundary of work (OSM, 2023) .....	1
Figure 3-1: Chart showing the typical classifications of the significance of effects (EPA, 2022) .....	11
Figure 4-1: Statutory designated sites within the Zol of the development .....	15
Figure 4-2: Non-statutory designated sites within the Zol of the development .....	15
Figure 4-3: Local river waterbodies (OSM, 2023) .....	21
Figure 4-4: Groundwater bodies in the vicinity of site (OSM, 2023).....	22
Figure 4-5: Aquifer vulnerability of the site (OSM, 2023) .....	22
Figure 4-6: Habitat Map (Source: OSM (2024)) .....	23
Figure 4-7: Amenity grassland of the athletics track and its surrounds.....	24
Figure 4-8: Meadow habitat from the north looking west along the site boundary.....	25
Figure 4-9: Meadow habitat along the south the athletics track .....	26
Figure 4-10: Bee Orchids present within the meadow grassland.....	26
Figure 4-11: Bat transect route, species encountered during the transect survey and the locations of the bat statics (Note the orientation of the diagram displayed in the lower left corner of the image) .....	28
Figure 4-12: The lighting along the footbath south of the pitch (facing south-west), with the limited overspill of the street lights allowing for a dark corridor to be retained. ....	29
Figure 4-13: The lighting along the footpath east of the pitch (facing north-west), with the limited overspill of the street lights allowing for a dark corridor to be retained. ....	30
Figure 4-14: The location of flocks of birds encountered during the site survey (OSM, 2023) .....	33
Figure 7-1: Lighting overspill diagram of the project's lighting. (Note the orientation of the diagram displayed in the lower left corner of the image) .....	54
Figure 7-2: A cropping of the lighting overspill diagram (with lux levels) of the project's lighting, focused on the athletics track and the immediate surrounds. The blue, green and light blue indicate low, medium and higher light intensities (Note the orientation of the diagram displayed in the lower left corner of the image) .....	55

## List of Tables

Table 3-1: Examples of criteria used to define the value of ecological features (derived NRA, 2008, rev. 2009) .....	7
Table 3-2: Examples of criteria used to define the value of ecological features of local importance (NRA, 2009) .....	8
Table 3-3: Categories of Effects (derived EPA, 2022). .....	8
Table 3-4: Significance of impacts matrix (derived from Figure 3-1, re EPA, 2022) .....	12
Table 4-1: Proximity and importance of designated sites within their respective Zol buffers .....	14
Table 4-2: Site briefs; Qualifying Interests; and project threats /pressures and their impacts and sources to the Natura 2000 sites within the Zol. ....	16
Table 4-3: Site briefs and ecological features of proposed Natural Heritage Areas within their respective 5km Zol. ....	18
Table 4-4: Proximity of invasive non-native species within 2km of the proposed site. ....	19
Table 4-5: WFD status and risk of local watercourses. ....	20
Table 4-6: Habitats recorded during site visit. ....	23
Table 4-7: Bat passes recorded from the 21st to 27th of May using the static in the shaded woodland north of the site .....	31
Table 4-8: Bat passes recorded from the 12th to 16th of June using the static in the shaded woodland north of the site .....	31
Table 4-9: Bat passes recorded from the 12th to 16th of June using the static in the woodland in the area of high light levels south of the site .....	31
Table 4-10: Bird survey results during the winter of 2019/2020 (Source: DLRCC).....	34
Table 4-11: Summary of ecological features and the screening assessment. ....	37
Table 5-1: Projects granted planning permission since June 2021 in vicinity of proposed site. ....	42
Table 7-1: Scheduled lighting times of the on-site floodlights, highlighting sensitive periods for bats.....	56
Table 9-1: Summary of Impacts; Mitigations; Significance of Residual Impacts.....	60

## Abbreviations

AA	Appropriate Assessment
BAP	Biodiversity Action Plan
CJEU	Court of Justice of the European Union
CIEEM	Chartered Institute of Ecology and Environmental Management
DLRCC	Dún Laoghaire Rathdown County Council
DEHLG	Department of Environment, Heritage and Local Government
EC	European Communities
EPA	Environmental Protection Agency
EU	European Union
GSI	Geological Survey Ireland
INNS	Invasive Non-native Species
IROPI	Imperative Reasons of Over-riding Public Interest
NBDC	National Biodiversity Data Centre
NOx	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
OPR	Office of the Planning Regulator
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SPA	Special Protection Area
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant
ZoI	Zone of Influence

# 1 Introduction

JBA Consulting Ireland Ltd. has been commissioned by Dún Laoghaire Rathdown County Council to undertake an Ecological Impact Assessment (EclA) in relation to the proposed installation of flood lights at the running track and soccer pitch at Kilbogget Park, Dún Laoghaire, Co. Dublin.

## 1.1 Aims

The aims of this EclA are to:

- Establish baseline ecological conditions to enable identification of potentially important ecological features within the zone of influence of the project
- Determine the ecological value of identified ecological features
- Assess the significance of impacts of the proposed project on ecological features of value
- Identify avoidance, mitigation or compensatory measures
- Identify residual impacts after mitigation and the significance of their effects
- Identify opportunities for ecological / biodiversity enhancement

## 1.2 The Existing Site

The site of the development is located in Kilbogget Park approximately 700m south-east of Cabinteely, and approximately 1km west of Ballybrack, and is situated approximately 180m east of the N11 Road. The site is located approximately 70m west of a culverted section of the Kill of the Grange Stream (Kill of the Grange Stream\_010), while the closest section of the stream at the surface is located approximately 430m north-west from the site. Additionally, the site is located approximately 300m east of the St Bride's Stream (Carrickmines Stream\_010). The site's location is shown in Figure 1-1.

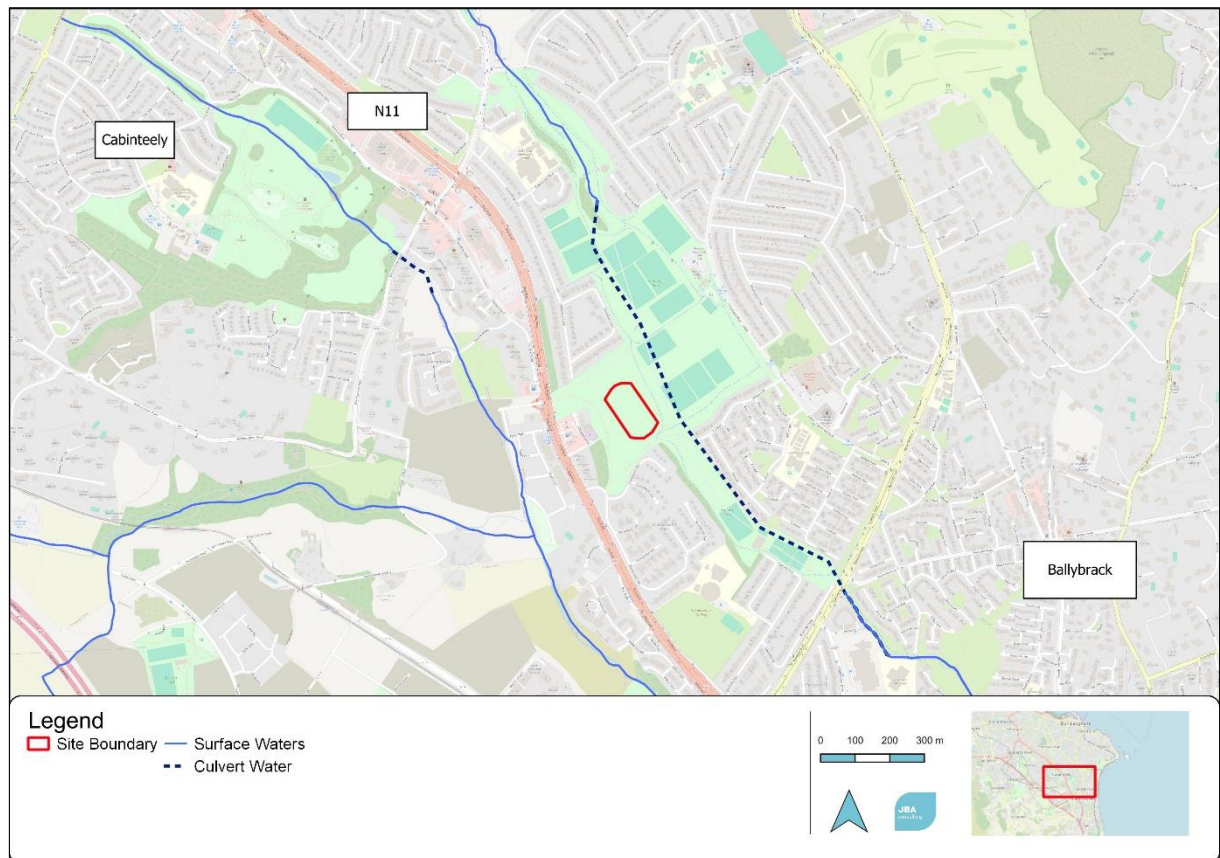


Figure 1-1: Site location and boundary of work (OSM, 2023)



## 2 Project Description

### 2.1 The 'Project'

The Proposed Project involves the installation of flood lighting at the Running Track & Soccer Pitch at Kilbogget Park. The site contains an athletics track, which runs along the boundary of the site, and inside the athletics track is a football pitch. The scope of works is alongside the includes 34no. floodlights which are in fixed positions. These will be divided between six lighting poles, with two of these poles being 18.3m in height and four of these poles being 21.3m in height.

The site will be accessed from the car park that is located immediately to the south-east of the site. The Site Layout Plan is available to view in Appendix A.

#### 2.1.1 Duration of the Works

The proposed project construction phase is scheduled to last for approximately 6-8 weeks.

#### 2.1.2 Excavation requirements

Excavations for the cabling and ducting is anticipated to be 650mm deep while the foundations for lighting columns are anticipated to be approximately 2-3m deep.

## 3 Methodology

### 3.1 The EclA Team

This EclA was completed by JBA Ecologists Michael Coyle, BA (Hons), MSc and the report has been reviewed by JBA Principal Ecologist Patricia Byrne BSc (Hons), PhD, MCIEEM.

These staff members thus fulfil the Environmental Impact Assessment (EIA) Directive personnel requirements of 'competent persons'.

### 3.2 Policy and Legislation

The biodiversity assessment included a comprehensive review of the following documents:

- The Planning & Development Act 2000 & the Planning and Development (Amendment) Act, 2010 (as amended) hereafter referred to as the Planning Acts.
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive);
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive);
- Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment;
- European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended);
- EU Water Framework Directive (2000/60/EC) and European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003);
- OPR Practice Note PN02 Environmental Impact Assessment Screening (OPR, June 2021);
- Wildlife Acts 1976-2021, and Wildlife (Amendment) Act 2023;
- Flora (Protection) Order, 2022 (S.I. No. 235 of 2022);
- National Biodiversity Plan 2023-2030, Department of Housing, Local Government and Heritage (DHLGH) 2024;
- Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads, NRA 2010;

### 3.3 Methods

This EclA assesses the ecological features present within the site and its surrounding area (the Zone of Influence (Zol)) in relation to the proposed works. This allows for identification of the potential impacts of the proposed works upon the ecological features of the site at an early stage, whilst identifying the potential ecological constraints upon the proposed works. The assessment is based on a desk-based assessment, which determines the baseline conditions at the site of the proposed works, and site surveys, which provided information on habitats and species present on the site and its surroundings.

This EclA will outline the findings of the desk-based assessment and the surveys and identify any potential impacts of the proposed works on ecological features within the Zol of the site; and propose mitigation measures to avoid or reduce impacts where necessary.

### 3.4 Guidance

This assessment was conducted in accordance with the following guidance documents:

- Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management (CIEEM, 2018).
- Guidelines on the information to be contained in Environmental Impact Assessment Reports Environmental Protection Agency (EPA, 2022).

- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (EU 2013);
- Bat Mitigation Guidelines for Ireland (Marnell et al., 2022);
- Bat Surveys for Professional Ecologists: Good Practise Guidelines (3rd edition) Bat Conservation Trust (Collins 2023)
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009)
- European Commission, Directorate-General for Environment, (2021) The strict protection of animal species of Community interest under the Habitats Directive: guidance document: a summary. Publications Office of the European Union. <https://data.europa.eu/doi/10.2779/3123>
- Guidelines for planning authorities and An Board Pleanála on carrying out environmental impact assessment (Department of Housing, Planning and Local Governments, August 2018);

### 3.5 Baseline

To determine the baseline conditions at the site a review of all available information was made. When determining the pre-work conditions on-site, including the presence or absence of protected habitats and/or species, the precautionary principle was used where limited information was available.

A desk-based assessment was carried out to collate information regarding protected/notable species and statutorily designated nature conservation sites in, or within close proximity to, the study area. This included a data search for protected and notable species using the National Biodiversity Data Centre (NBDC) Mapping System (NBDC, 2024). A customised 2km polygon was created to extract all the species data from the project site and its surrounding area, while an extended customised 5km polygon was created to extract all species data in the set Zone of Influence for this project.

Information for statutory designated sites including Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar Sites, Natural Heritage Areas (NHAs) and proposed NHAs (pNHA) was collected from the online resources provided by the National Parks and Wildlife Service (NPWS).

Other information on the local area was obtained, including:

- EPA, 2024a. EPA Catchments.ie [online]. Available online at: <https://www.catchments.ie/maps/>
- EPA, 2024b. EPA Maps [online], Next Generation EPA Maps. Available online at: <https://gis.epa.ie/EPAMaps/>
- GSI, 2024. Geological Survey Ireland Spatial Resources website, available at <https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aac3c228>
- IFI, 2024. Water Framework Directive Fish Ecological Status 2008-2021 Available online at: <https://opendata-ifigis.hub.arcgis.com/datasets/IFIgis::water-framework-directive-fish-ecological-status-2008-2021/explore?location=53.365760%2C-6.414157%2C14.45>
- NPWS, 2019a. The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
- NPWS, 2019b. The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitats Assessment. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neil. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
- NPWS, 2019c. The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessment. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neil. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
- Aerial photography available from [www.osi.ie](http://www.osi.ie) and Google Maps <http://maps.google.com/> ;
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from [www.npws.ie](http://www.npws.ie)

- National Biodiversity Data Centre, 2023 – Species Distribution Maps; Available online at [www.biodiversityireland.ie](http://www.biodiversityireland.ie) Accessed on various dates;
- All Ireland Red Data lists for vascular flora, mammals, butterflies, non-marine molluscs, dragonflies & damselflies, amphibians and fish;
- Water Framework Directive water maps (available online at <http://www.wfdireland.ie/maps.html> and <https://www.catchments.ie/>); and
- International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species (available online at <http://www.iucnredlist.org>).

### 3.5.1 Zone of Influence

The project will primarily affect the site only, but a wider Zone of Influence (Zoi) is utilised for impacts relating to noise disturbance (300m); air pollution (50m as per the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2024)); groundwater and surface water pollution (5km), with an additional 15km buffer for hydrologically connected transitional and coastal waters.

### 3.5.2 Field Surveys

A general ecological site walkover, including habitat mapping, mammal and preliminary bat roost surveys were conducted on the 13th of January 2023 by Mark Desmond and Michael Coyle of JBA Consulting to inform the initial ecological baseline of the site. In the revisit to the site on the 12th of June 2024 prior to a bat transect survey, the site was noted to have developed a meadow grassland not previously seen in the initial survey of January 2023, and a species list was gathered from this meadow grassland and habitat mapping was updated.

The ecological walkover surveys recorded habitats and protected species, following guidance outlined in the documents below:

- Best Practice Guidance for habitat Survey and Mapping. The Heritage Council. (Smith et al., 2011)
- Collins, J. (Ed.), 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (2008), NRA 2008

Aerial photographs and site maps assisted the habitat survey. Habitats have been named and described following A Guide to Habitats in Ireland by Fossitt (2000). Nomenclature for higher plants follows that given in The New Flora of the British Isles 4th Edition (Clive Stace 2019). Identification of Irish plants generally follows Webb's An Irish Flora (Parnell and Curtis, 2012).

### 3.5.3 Water Framework Directive

In response to the increasing threat of pollution and the increasing demand from the public for cleaner rivers, lakes and beaches, the EU developed the Water Framework Directive (WFD). This Directive is unique in that, for the first time, it establishes a framework for the protection of all waters including rivers, lakes, estuaries, coastal waters and groundwater, and their dependent wildlife/habitats under one piece of environmental legislation for all European member states.

The WFD (Directive 2000/60/EC) is a substantial piece of EU water legislation that came into force in 2000. The overarching objective of the WFD is for the water bodies in Europe to attain Good or High Ecological Status. The Environment Protection Agency (EPA) is the competent authority in Ireland responsible for delivering the WFD. River Basin Management Plans (RBMP) have been created which set out measures to ensure that water bodies in the country achieve 'Good Ecological Status'.

Good Ecological Quality will depend on the quality of the individual quality elements on which the Ecological status is scored; namely the biological, chemical and morphological condition in a particular water body. Any reduction in any of these elements will result in a reduction of the overall ecological status.

### 3.5.4 Water Framework Status and Objectives

It is understood that Draft River Basin Management Plan for Ireland (2022-2027) has been adopted by all local authorities in order to achieve the aims of the WFD. The Plan sets out the new approach that Ireland will take to enhance protection, prevention, and monitoring of Irish waterbodies. The main actions include:

- Improve waste water treatment;
- Conservation and leakage reduction;
- Scientific assessment of water bodies and implementation of local measures;
- A new collaborative Sustainability and Advisory Support Programme;
- Dairy Sustainability Initiative;
- Development of water and planning guidance for local authorities;
- Extension of Domestic Waste Water Treatment Systems grant Schemes; and
- A new Community Water Development Fund

Regardless of their current quality, surface waters should be treated the same in terms of the level of protection and mitigation measures employed, i.e., there should be no negative change in status.

The third and current cycle aims to build particularly on the initiatives of the second cycle, particularly the governance and implementation structures, and to improve the establishment of Irish Water, An Fóram Uisce (The Water Forum), the Local Authority Waters Programme and the Agricultural Sustainability Support and Advisory Programme.

### 3.6 Screening of Ecological Features

The ecological features identified during the walkover surveys and from desk-based assessments were reviewed.

An informal screening process is presented at the start of the results section to ensure that the assessment focuses only on features where the impact could have important consequences for biodiversity (valued ecological features). Any features which are important beyond the site level were identified for further evaluation. Ecological features with little or no value beyond the site level were screened out and a short statement explaining this is given in the screening section.

An Appropriate Assessment (AA) Screening Report has been produced separate to this EclA (JBA, 2024), to assess the potential for effects on Designated Natura 2000 sites. The AA Screening Report concluded there was **no potential for adverse significant effects on European sites** arising from the proposed development, either alone or in-combination with other plans or projects.

### 3.7 Assessment of the Effects on Features

Ecological features include nature conservation sites, habitats, species assemblages / communities, populations or groups of species. The assessment of the significance of predicted impacts on ecological features is based on both the 'value' of a feature, and the nature and magnitude of the impact that the project will have on it. The impact is based on the project which includes a certain amount of designed-in mitigation, including construction best practice measures that will be implemented with a high degree of certainty.

### 3.8 Valuation of Receptors

The value of designated sites, habitats and species populations is assessed with reference to:

- Their importance in terms of 'biodiversity conservation' value (which relates to the need to conserve representative areas of different habitats and the genetic diversity of species populations).
- Any social benefits that habitats and species deliver (e.g., relating to enjoyment of flora and fauna by the public).
- Any economic benefits that they provide.

The valuation of designated sites considers different levels of statutory and non-statutory protection. Assessment of habitat depends on several factors, including the size of the habitat, its conservation status and quality. The assessment also takes account of connected off-site habitat that may increase the value of the on-site habitat through association. Valuation of species depends on a number of factors including distribution, status, rarity, vulnerability, and the population size present.

Designated sites, habitats and species populations have been valued using the scale in Table 3-1.

Table 3-1: Examples of criteria used to define the value of ecological features (derived NRA, 2008, rev. 2009)

Level of Value	Examples of Criteria
International	<p>An internationally important site e.g. Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar (or a site considered worthy of such designation).</p> <p>A regularly occurring substantial population of an internationally important species (listed on Annex IV of the Habitats Directive).</p> <p>Designated shellfish waters.</p> <p>Major fisheries area.</p>
National	<p>A nationally designated site e.g. Natural Heritage Area (NHA), a proposed Natural Heritage Area (pNHA), statutory Nature Reserve, or a site considered worthy of such designation.</p> <p>A viable area of a habitat type listed in Annex I of the Habitats Directive or of smaller areas of such habitat which are essential to maintain the viability of a larger whole.</p> <p>A regularly occurring substantial population of a nationally important species, e.g. listed on The Wildlife Act 1976 or The Wildlife (Amendment) Act 2000.</p> <p>A species included in the Irish Red Data Lists/Books.</p> <p>Significant populations of breeding birds.</p>
Regional/County (County Dublin)	<p>Species and habitats of special conservation significance within County Dublin.</p> <p>An area subject to a project/initiative under the County's Biodiversity Action Plan.</p> <p>A regularly occurring substantial population of a nationally scarce species.</p>
Local (works site and its vicinity)	<p>Areas of internationally or nationally important habitats which are degraded and have little or no potential for restoration.</p> <p>A good example of a common or widespread habitat in the local area.</p> <p>Species of national or local importance, but which are only present very infrequently or in very low numbers within site area.</p>
Less than local*	<p>Areas of heavily modified or managed vegetation of low species diversity or low value as habitat to species of nature conservation interest.</p> <p>Common and widespread species.</p>
<p>* Not included within the original NRA table. Level of value added to address features with less than 'Local' value</p>	

Guidance published by CIEEM (2018) recommends breaking down the importance of ecological features in a geographic context similar to the NRA guidance shown in Table 3-1 with the following frame of reference to be adapted to local circumstances.

- International and European
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- River Basin District

- Estuarine system/Coastal cell
- Local

The NRA (2009) guidance is congruent with this CIEEM (2018) guidance and includes a ‘Less than local’ level. The NRA (2009) guidance on geographic criteria for ecological valuation, as described in Table 3-1 is followed in this report.

Ecological Valuation may also be considered of Local Importance (higher value) or Local Importance (lower value) (Table 3-2).

Table 3-2: Examples of criteria used to define the value of ecological features of local importance (NRA, 2009)

Level of Value	Examples of Criteria
Local Importance (higher value)	<p>Locally important populations of priority species or habitats or natural heritage features identified in the Local Biodiversity Action Plan (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 of animal and plants listed in Annex II and/or IV of the Habitats Directive;</li> <li>*Species protected under the Wildlife Acts; and/or</li> <li>*Species listed on the relevant Red Data List.</li> </ul> <p>Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality.</p> <p>Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value</p>
Local Importance (lower value)	<p>Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;</p> <p>Sites or features containing non-native species that are of some importance in maintaining habitat links</p>

### 3.8.1 Magnitude of Impacts

Ecological effects or impacts can be described and categorised in a number of ways. Examples of relevant terms are listed in the table below.

Table 3-3: Categories of Effects (derived EPA, 2022).

Description	Categories of Effects
Quality of Effects	<p><b>Positive Effects</b></p> <p>A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).</p>
	<p><b>Neutral Effects</b></p> <p>No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.</p>

Description	Categories of Effects
	<p><b>Negative/adverse Effects</b> A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).</p>
Describing the Significance of Effects	<p><b>Imperceptible</b> An effect capable of measurement but without significant consequences.</p> <p><b>Not Significant</b> An effect which causes noticeable changes in the character of the environment but without significant consequences.</p> <p><b>Slight Effects</b> An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p><b>Moderate Effects</b> An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p><b>Significant Effects</b> An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.</p> <p><b>Very Significant</b> An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.</p> <p><b>Profound Effects</b> An effect which obliterates sensitive characteristics.</p>
Describing the Extent and Context of Effects	<p><b>Extent</b> Describe the size of the area, the number of sites and the proportion of a population affected by an effect.</p> <p><b>Context</b> Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).</p>
Describing the Probability of Effects	<p><b>Likely Effects</b> The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p> <p><b>Unlikely Effects</b> The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
Describing the Duration and Frequency of Effects	<p><b>Momentary Effects</b> Effects lasting from seconds to minutes.</p> <p><b>Brief Effects</b> Effects lasting less than a day.</p> <p><b>Temporary Effects</b> Effects lasting less than a year.</p> <p><b>Short-term Effects</b> Effects lasting one to seven years.</p> <p><b>Medium-term Effects</b> Effects lasting seven to fifteen years.</p> <p><b>Long-term Effects</b> Effects lasting fifteen to sixty years.</p>



Description	Categories of Effects
	<p><b>Permanent Effects</b> Effects lasting over sixty years.</p> <p><b>Reversible Effects</b> Effects that can be undone, for example through remediation or restoration.</p> <p><b>Frequency of effects</b> Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly - or hourly, daily, weekly, monthly, annually).</p>
Describing the Types of Effects	<p><b>Indirect Effects (a.k.a. Secondary or Off-site Effects)</b> Effects on the environment. Which are not a direct result of the project, often produced away from the project site of because of a complex pathway</p> <p><b>Cumulative Effects</b> The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.</p> <p><b>Do-nothing Effects</b> The environment as it would be in the future should the subject project not be carried out.</p> <p><b>Worst Case Effects</b> The effects arising from a project in the case where mitigation measures substantially fail.</p> <p><b>Indeterminable Effects</b> The effects arising from a project in the case where mitigation measures substantially fail.</p> <p><b>Irreversible Effects</b> When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.</p> <p><b>Residual Effects</b> The degree of environmental change that will occur after the proposed mitigation measures have taken effect.</p> <p><b>Synergistic Effects</b> Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of SOx and NOx to produce smog).</p>

### 3.8.2 Significance of impacts

The overall significance of an impact can be derived from the total description of the effect compared against the sensitivity and significance (value) of the receptor as shown overleaf in Figure 3-1 which is taken from the EPA's EIA Guidelines (EPA, 2022). The context and character of the receptor must also be assessed, such as its position in relation to the effect and its connectivity to the effect, however this should be determined before assessing the significance of the impact.

The total description of the effect includes the character, magnitude, probability and consequences of the effect as described in Table 3-4 which are combined to give a general description of the effect on an ordinal scale from Negligible to High. The sensitivity and significance of the receptor is also described on an ordinal scale from Negligible to High.

The placement of the general description of the effect, and the sensitivity/significance of the receptor on this scale is determined by a Competent Person (a qualified ecologist in this case) as they interpret the qualities of the effect from the categories listed in Figure 3-1 and the receptors sensitivity and significance. Level of significance, also described as value of the receptor is previously set out in sub-section 3.8 above. Sensitivity of the receptor is assessed by the Competent Person based on the receptor's characteristics and how susceptible to impact they are from the type of effect.

The overall significance of an effect is then categorised into one of the following seven classifications:

- Imperceptible

- Not Significant
- Slight
- Moderate
- Significant
- Very Significant
- Profound

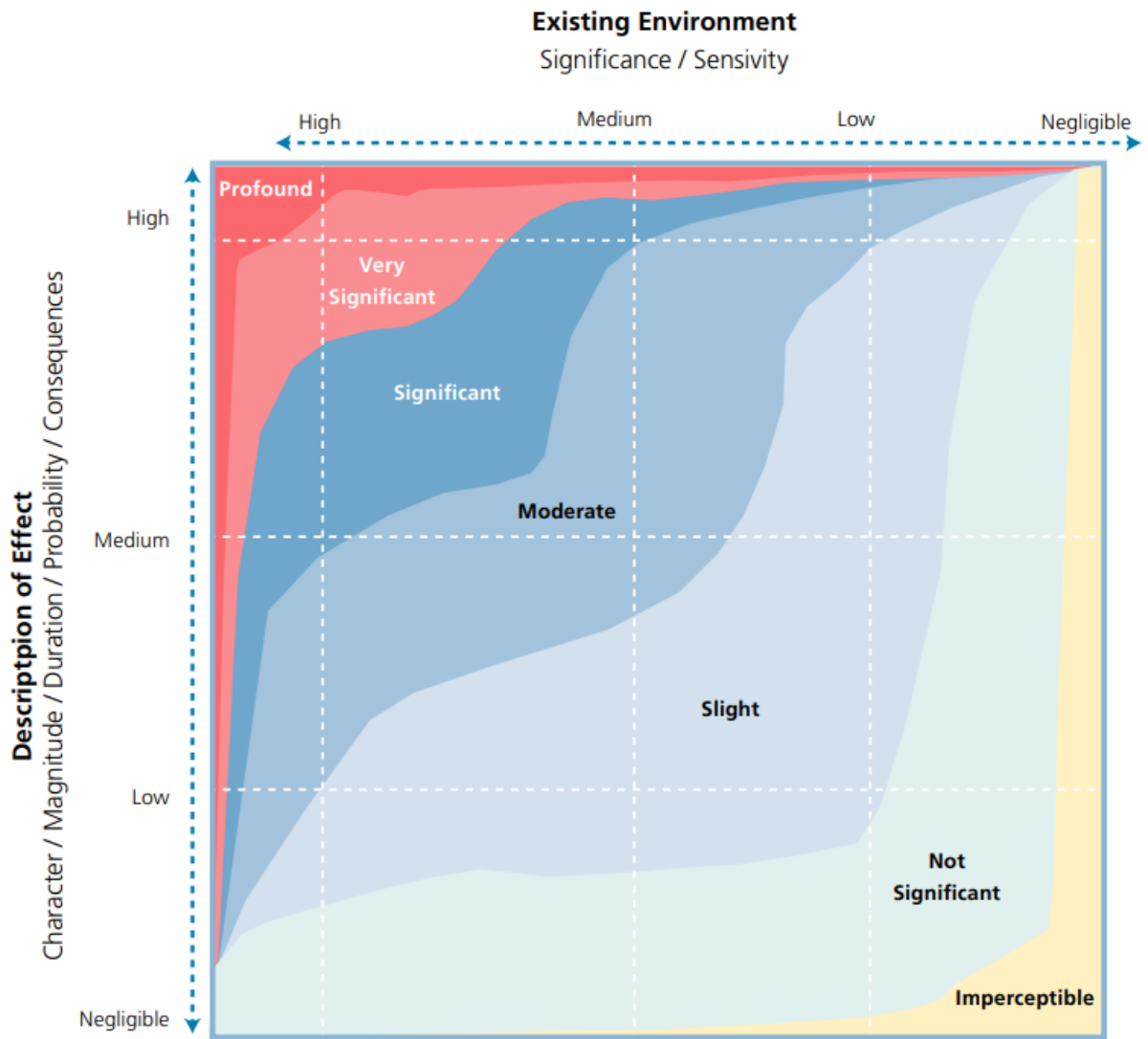


Figure 3-1: Chart showing the typical classifications of the significance of effects (EPA, 2022)

This chart has been interpreted in Table 3-4 as a significance of impacts matrix below. The scale has been ordered into an upper and lower bound for each qualitative category, so that degrees of significance within subcategories can be interpreted by the Competent Person. As Table 3-4 frames the significance of effects as a defined categorical scale rather than a sliding gradient as is shown in the EPA guidance, it is intended to be used as an initial reference resource, rather than definitive method of assigning impacts.

Table 3-4: Significance of impacts matrix (derived from Figure 3-1, re EPA, 2022)

Magnitude of impact	Sensitivity/ Value of Receptor							
	High +	High -	Medium +	Medium -	Low +	Low -	Negligible +	Negligible -
High +	Profound	Very Significant	Very Significant	Significant	Moderate	Moderate	Not Significant	Imperceptible
High -	Very Significant	Very Significant	Significant	Moderate	Moderate	Slight	Not Significant	Imperceptible
Medium +	Very Significant	Significant	Moderate	Moderate	Slight	Slight	Not Significant	Imperceptible
Medium -	Significant	Moderate	Moderate	Moderate	Slight	Slight	Not Significant	Imperceptible
Low +	Moderate	Slight	Slight	Slight	Slight	Slight	Not Significant	Imperceptible
Low -	Slight	Slight	Slight	Slight	Slight	Not Significant	Not Significant	Imperceptible
Negligible +	Not Significant	Not Significant	Not significant	Not Significant	Not Significant	Not Significant	Not Significant	Imperceptible
Negligible -	Not Significant	Not Significant	Not significant	Not Significant	Not Significant	Imperceptible	Imperceptible	Imperceptible

### 3.8.3 Residual Impacts

The project is assessed including some designed-in mitigation (e.g., bat friendly lighting). This is done where mitigation is proven to be effective and will be implemented effectively with a high certainty. Where significant residual impacts are still identified, further mitigation measures will be proposed as part of the Ecological Impact Assessment process to avoid, reduce or minimise them. Each impact assessment section assigns a final significance level to the impact described, which considers and includes the implementation of any stated mitigation measures; these are the residual impacts.

## 3.9 Cumulative Impacts

Potential sources of cumulative impacts were identified based on the ecology of valued ecological features. Potential sources of cumulative impacts were sought within an area where there is the potential for a significant impact on a site or species. The plans and projects identified as potential sources of cumulative impacts are described in Section 5.

## 3.10 Limitations and Constraints

This EclA is based on ecological site surveys and existing data from the above-mentioned sources. The report necessarily relies on some assumptions and is inevitably subject to some limitations. These do not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- Information on the works and conditions on site are based on current knowledge at the time of writing. Changes to the site since surveys were undertaken cannot be accounted for. However, the site surveys have followed CIEEM (2019) Advice note on the lifespan of ecological reports and surveys. Any changes to the proposed works will require an assessment by a suitably qualified ecologist to determine if re-assessment is required.
- Adverse weather can cause delays to the schedule and alter the timing of works. This has been accounted for using a worst-case scenario where possible.
- This assessment is based on the methodology for proposed works as described in this report. Where changes to the methodology occur, an ecologist will need to be consulted to determine if the changes are likely to alter the ecological effects and would therefore need reassessment.
- Data from biological record centres or online databases is historical information, and datasets may be incomplete, inaccurate, or missing. The absence of records for an area may be due to the under recording in the area and not necessarily imply the absence of species. These records are therefore to be treated as minimum information available for the area.
- Initial ecological surveys were conducted outside of the optimal window for vegetation (early January 2023), as such, some vegetation species may not have been present at the time of survey efforts. It was originally assessed that habitat is highly managed amenity grassland and it is unlikely that rare species will occur, however, in a revisit of June 2024, the grassland was seen to have a larger diversity and ecological value that originally recorded.

## 4 Baseline Conditions

These baseline conditions present information gathered from existing reports and desk-based sources as detailed in Section 3.6. To inform this EclA the initial baseline ecological site survey was performed by JBA Ecologists, Mark Desmond and Michael Coyle on the 13th of January 2023. During the first bat transect survey on the 21st of May 2024, areas of the amenity grassland within proximity to the site were noted to be managed differently and allowed to develop with increased species. Following this, an additional recording of species was undertaken in these unmanaged areas on the 12th of June 2024.

### 4.1 Desk-based Assessment

#### 4.1.1 Designated Sites

This section lists the designated sites of International and National importance. The Zone of Influence (Zol) for this project is a general 5km radius and any downstream hydrological connection (including transitional waters buffer) for statutory sites; and a general 5km radius for non-statutory sites. Figure 4-1 displays the locations of the statutory designated sites, with Figure 4-2 displaying the non-statutory (proposed and existing Natural Heritage Area) designated sites within the Zol of the site. Table 4-1 lists these designated sites with their respective importance and distance from the proposed site development. Table 4-2 and Table 4-3 display site descriptions and their respective ecological features.

Table 4-1: Proximity and importance of designated sites within their respective Zol buffers

Name	Designation	Importance	Distance from site	Hydrological Distance from Site
South Dublin Bay	SAC	International	4.5km	n/a
South Dublin Bay and River Tolka Estuary	SPA	International	4.5km	n/a
Rockabill to Dalkey Island	SAC	International	3.4km	3.8km (indirect)
Dalkey Island	SPA	International	3.8km	5.25km(indirect)
Dingle Glen	pNHA	National	3km	n/a
Loughlinstown Woods	pNHA	National	1.1km	1.6km (indirect)
South Dublin Bay	pNHA	National	4.4km	n/a
Dalkey Coastal Zone and Killiney Hill	pNHA	National	1.4km	2.2km (indirect)

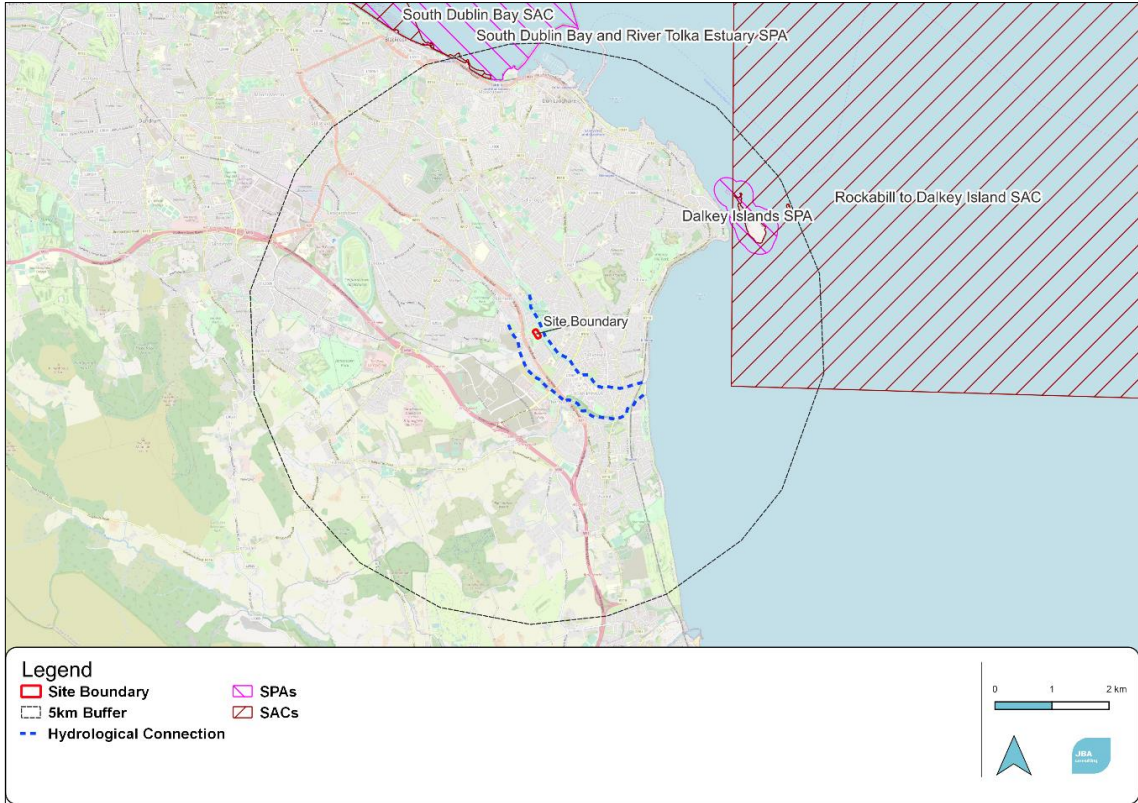


Figure 4-1: Statutory designated sites within the Zol of the development (OSM, 2024)

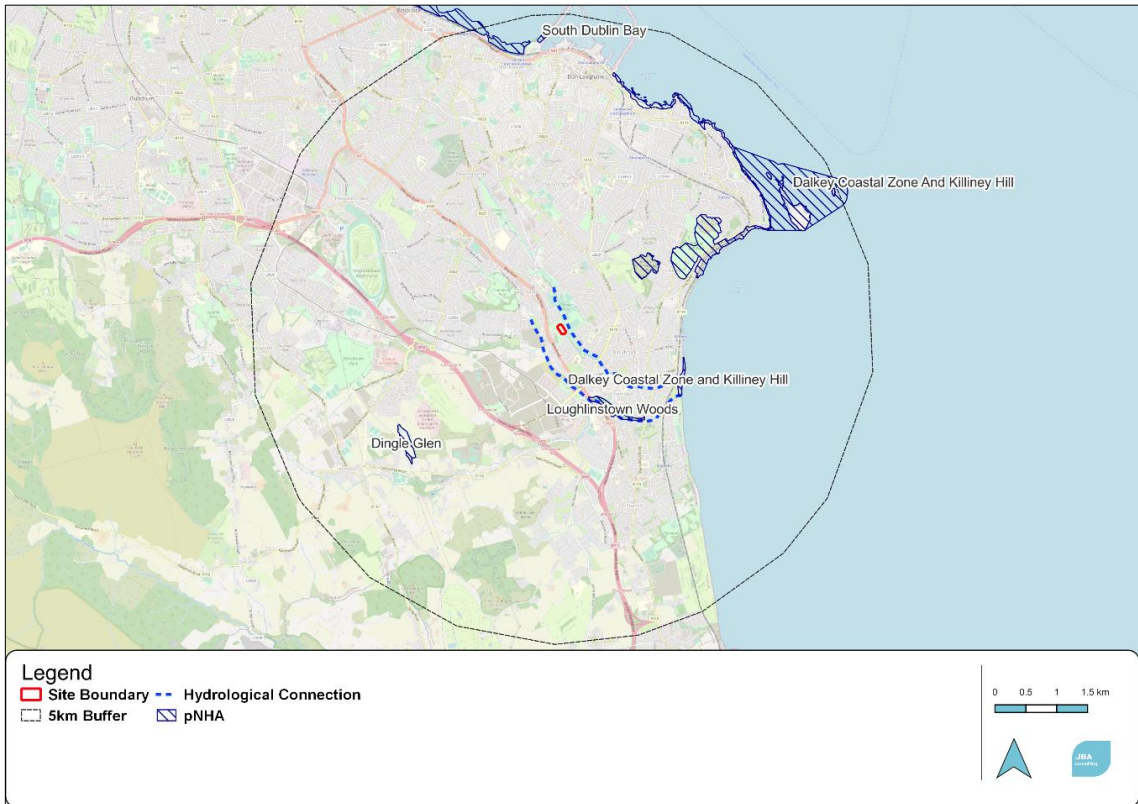


Figure 4-2: Non-statutory designated sites within the Zol of the development (OSM, 2024)

Table 4-2: Site briefs; Qualifying Interests; and project threats /pressures and their impacts and sources to the Natura 2000 sites within the Zol.

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source EEA)+
South Dublin Bay SAC [000210]	The intertidal flats at their widest points are 3km with channels existing at largest with Cockle Lake. A small sandy beach occurs near to Dun Laoighre, with an almost entire artificial embankment. The sediments from the Tolka Estuary vary from thixotropic mud with a high organic content in the inner estuary to a well aerated and exposed sand system off of the Bull Wall. Insights show that many birds who winter in South Dublin Bay do not continue towards North Dublin Bay (NPWS, 2015a).	<ul style="list-style-type: none"> <li>- Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>- Annual vegetation of drift lines [1210]</li> <li>- <i>Salicornia</i> and other annuals colonising mud and sand [1310]</li> <li>- Embryonic shifting dunes [2110] (NPWS 2013a)</li> </ul>	<p>Roads, motorways: Low impact (outside)</p> <p>Urbanised areas, human habitation: High impact (outside) (EEA, 2020a)</p>
South Dublin Bay and River Tolka Estuary SPA [004024]	This site covers a large part of the Dublin Bay, including the intertidal area of the River Liffey and Dun Laoghaire, along with the estuary of the River Tolka to the north of the River Liffey and Booterstown Marsh. The south of the bay has intertidal flats that at their widest extend for almost 3km. The site is important for wintering fowl, integral for the importance of the Dublin Bay complex (NPWS, 2015b).	<ul style="list-style-type: none"> <li>- Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A046]</li> <li>- Oystercatcher <i>Haematopus ostralegus</i> [A130]</li> <li>- Ringed Plover <i>Charadrius hiaticula</i> [A137]</li> <li>- Grey Plover <i>Pluvialis squatarola</i> [A141]</li> <li>- Knot <i>Calidris canutus</i> [A143]</li> <li>- Sanderling <i>Calidris alba</i> [A144]</li> <li>- Dunlin <i>Calidris alpina</i> [A149]</li> <li>- Bar-tailed Godwit <i>Limosa lapponica</i> [A157]</li> <li>- Redshank <i>Tringa totanus</i> [A162]</li> <li>- Black-headed Gull <i>Chroicocephalus ridibundus</i> [A179]</li> <li>- Roseate Tern <i>Sterna dougallii</i> [A192]</li> <li>- Common Tern <i>Sterna hirundo</i> [A193]</li> <li>- Arctic Tern <i>Sterna paradisaea</i> [A194]</li> <li>- Wetland and Waterbirds [A999] (NPWS 2015c)</li> </ul>	<p>Roads, motorways Low impact (outside)</p> <p>Urbanised areas, human habitation High impact (outside) (EEA, 2021)</p>
Rockabill to Dalkey Island SAC [003000]	The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. The area selected for designation represents a key habitat for the Annex II species - harbour porpoise, within the Irish Sea. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for	<ul style="list-style-type: none"> <li>- Reefs [1170]</li> <li>- Harbour Porpoise <i>Phocoena phocoena</i> [1351] (NPWS, 2013b)</li> </ul>	<p>Discharges: High Impact (outside)</p> <p>Siltation rate changes, dumping, depositing of dredged deposits: Low Impact (outside)</p>

Site Name	Brief	Qualifying Interests	Project-relevant Threats / Pressures: Impact (Source EEA)+
	<p>the species. The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species – Harbour seal <i>Phoca vitulina vitulina</i>, Grey seal <i>Halichoerus grypus</i> for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin <i>Tursiops truncatus</i> has also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms (NPWS, 2014).</p>		<p>( EEA, 2019)</p>
<p>Dalkey Island SPA [004172]</p>	<p>The site comprises Dalkey Island, Lamb Island, Maiden Rock, the intervening rocks and reefs between Dalkey Island, Lamb Island and Clare Rock, and the sea area around Maiden Rock to a distance of 100 m. The site is of importance for both breeding and staging <i>Sterna</i> terns. There is a well-established colony of <i>Sterna hirundo</i> and smaller numbers of <i>Sterna paradisaea</i>. <i>Sterna dougallii</i> bred in 2003 and 2004, one of only three known sites in the country - this came about after several years of conservation management aimed at attracting the species. The site along with other parts of south Dublin Bay is used by the three <i>Sterna</i> tern species as a major post-breeding/pre-migration autumn roost area (NPWS, 2015d).</p>	<p>- Roseate Tern <i>Sterna dougallii</i> [A192]            - Common Tern <i>Sterna hirundo</i> [A193]            - Arctic Tern <i>Sterna paradisaea</i> [A194]            (NPWS, 2022)</p>	<p>No project-relevant threats or pressures</p> <p>(Full list of threats / pressures - EEA, 2020b)</p>

\* = priority Annex I habitat

# = indirect threat via the increase in the local populace and workforce; and recreational activities as a result of the development

+ = Project relevant threats occur at Low, Medium and High impact rates, and these threats come from sources originating Inside or Outside (or a mixture of Both) of the Natura 2000 site boundary.



Table 4-3: Site briefs and ecological features of proposed Natural Heritage Areas within their respective 5km Zol.

Site Name	Brief	Ecological Features of Conservation Concern
South Dublin Bay pNHA [000210]	As per South Dublin Bay SAC description in Table 4-2.	As per those outlined in SAC description
Dalkey Coastal Zone and Killiney Hill pNHA [001206]	<p>This pNHA encompasses the boundaries of Rockabill to Dalkey Island SAC and Dalkey Islands SPA and as such includes their descriptions in Table 3-2. The pNHA also includes Killiney Hill which is a complex of coastal heath and mixed woodland. The woods are mostly planted and include Sycamore <i>Acer pseudoplatanus</i>, Horse Chestnut <i>Aesculus hippocastanum</i>, some oak <i>Quercus</i> spp., Ash <i>Fraxinus excelsior</i> and Holly <i>Ilex aquifolium</i>. The ground flora is mainly Ivy <i>Hedera helix</i> and bramble <i>Rubus</i> spp. but there are some areas with more typical woodland species such as Wood-sorrel <i>Oxalis acetosella</i> and Herb-Robert <i>Geranium robertianum</i>.</p> <p>Many of the rock surfaces include open and bushy areas on the east of the summit which are roches moutonnes while near the summit spodumene is found. Drift banks are found near shingle beaches along the coast with warm shallow soils that support scarce plants such as Bloody Crane’s-bill <i>Geranium sanguineum</i>, Bee Orchid <i>Ophrys apifera</i>, Sea Stork’s-bill <i>Erodium maritimum</i> and clovers <i>Trifolium mormithopodioides</i>, <i>T. striatum</i> and <i>T. scabrum</i>). The naturalised Silver Ragwort <i>Senecio cineraria</i> is widespread. Drift banks are also present. Killiney beach consists of a shingle littoral zone which grades into a sublittoral zone that supports a number of invertebrate species often found in west and south coast. (NPWS, 2009a)</p>	<ul style="list-style-type: none"> <li>- Roseate Tern <i>Sterna dougallii</i> [A192]</li> <li>- Common Tern <i>Sterna hirundo</i> [A193]</li> <li>- Arctic Tern <i>Sterna paradisaea</i> [A194]</li> <li>- Reefs [1170]</li> <li>- Harbour Porpoise <i>Phocoena phocoena</i> [1351]</li>   <li>- Sea Cliffs</li> <li>- Drift Lines</li> </ul>
Loughlinstown Woods pNHA [001211]	<p>The wood was originally planted but following substantial regeneration, has produced woodland of natural character in age structure and form. The western end retains a high canopy of Beech <i>Fagus sylvatica</i>, Sycamore <i>Acer pseudoplatanus</i> and some Elm <i>Ulmus</i> spp., with Holly <i>Ilex aquifolium</i> and Cherry Laurel <i>Prunus laurocerasus</i> below. There is little regeneration in this part of the wood. There is a gradation into a dense thicket of bramble <i>Rubus</i> spp., and trees such as Ash <i>Fraxinus excelsior</i>, Blackthorn <i>Prunus spinosa</i> and Hazel <i>Corylus avellana</i> occur here. A stand of Gorse <i>Ulex europaeus</i> occurs at the eastern end of the site.</p> <p>The valley floor has much Alder <i>Alnus glutinosa</i> and some willows <i>Salix</i> spp.. The introduced Giant Hogweed <i>Heracleum mantegazzianum</i> has spread along the banks of the river (NOWS, 2009b).</p>	<ul style="list-style-type: none"> <li>- Mixed Broadleaf Woodland</li> </ul>
Dingle Glen pNHA [001207]	<p>Dingle Glen is a dry valley formed by a glacial lake overflow channel. Vegetation here was previously cleared and the valley bottom is now made up pioneer scrub species forming an immature woodland Species include Holly <i>Ilex aquifolium</i>, Blackthorn <i>Prunus spinosa</i>, and willows <i>Salix</i> spp.. Individual trees of Ash <i>Fraxinus excelsior</i>, Hazel <i>Corylus avellana</i>, Sessile Oak <i>Quercus petraea</i> and Spindle <i>Euonymus europaeus</i> occur. The woodland ground flora is represented by Foxglove <i>Digitalis purpurea</i>, Wood Avens <i>Geum urbanum</i>, Wood Melic <i>Melica uniflora</i> and Bugle <i>Ajuga reptans</i>. The slopes are dominated by Gorse <i>Ulex europaeus</i> and Bracken <i>Pteridium aquilinum</i> and other heath species. The importance of this site lies in the variety of habitats present (NPWS 2009c).</p>	<ul style="list-style-type: none"> <li>- Heath and woodland species</li> </ul>

#### 4.1.2 Screening of designated sites

An AA Screening has been carried out for this project by JBA (2024). Following initial screening, and based upon best scientific judgement it is concluded that **likely significant effects are not anticipated** from the project on any of the four Natura 2000 sites within the project's Zol due to the nature and scale of the project, the large, indirect hydrological link and the distance between the project site and these Natura 2000 sites:

- South Dublin Bay SAC
- South Dublin Bay and River Tolka Estuary SPA
- Rockabill to Dalkey Island SAC
- Dalkey Island SPA

The pNHA sites below, are being **screened out** due one or more of the following: lack of hydrological connectivity (surface water and groundwater) and/or distance from the proposed site; and the development's scale (capacity for dust generation):

- South Dublin Bay pNHA
- Dingle Hill pNHA
- Dalkey Coastal Zone and Killiney Hill pNHA
- Loughlinstown Woods pNHA

#### 4.1.3 Protected Species

##### National Biodiversity Data Centre (NBDC)

Records of protected fauna including amphibians, bats, birds, invertebrates and mammals collated from the NBDC (2024) database, present within the surrounding 2km within the past 10 years are used to assess the potential species present in the vicinity of the site, meanwhile an extended list of species present within the surrounding 5km within the past 10 years is listed in Appendix C. This list includes their level of protection, if they are red or amber listed on the International Union for the Conservation of Nature and Natural Resources (IUCN) Red List and the date of the last record of this species at this location.

#### 4.1.4 Invasive Non-native Species

The records from the NBDC (2024) database, show that there are six high-impact and four medium-impact, invasive non-native species listed on the Third Schedule of Non-native species (subject to restrictions under Regulations 49 and 50) present within the surrounding 2km of the proposed site within the past 10 years (Table 4-4). A full list of non-native invasive species within 5km is listed in Appendix C.

Table 4-4: Proximity of invasive non-native species within 2km of the proposed site.

High Impact Invasive Non-native Species	Approximate distance from site	Impact status
American Skunk-cabbage <i>Lysichiton americanus</i>	1.2km	Medium Impact
Floating Pennywort <i>Hydrocotyle ranunculoides</i>	1.3km	High Impact
Giant Hogweed <i>Heracleum mantegazzianum</i>	0.3km	High Impact
Japanese Knotweed <i>Fallopia japonica</i>	0.4km	High Impact
New Zealand Pigmyweed <i>Crassula helmsii</i>	1.6km	Medium Impact
Sea-buckthorn	2km	Medium Impact

High Impact Invasive Non-native Species	Approximate distance from site	Impact status
<i>Hippophae rhamnoides</i>		
Three-cornered Garlic <i>Allium triquetrum</i>	1.2km	Medium Impact
Harlequin Ladybird <i>Harmonia axyridis</i>	0.3km	High Impact
Brown Rat <i>Rattus norvegicus</i>	On-site	High Impact
Eastern Grey Squirrel <i>Sciurus carolinensis</i>	On-site	High Impact

## 4.2 Water Framework Directive

### 4.2.1 Surface Water Status

The entirety of the proposed project is located within the Water Framework Directive (WFD) Ovoca-Vartry catchment, and within the Dargle\_SC\_010 sub-catchment (EPA, 2024). There are no watercourses located within the area of the project, however there are two watercourses located near to the site; a culverted section of the Kill of the Grange Stream (Kill of the Grange Stream\_010), located approximately 70m east of the site (with the closest section of the stream at the surface located approximately 430m north-west from the site), and St Bride's Stream (Carrickmines Stream\_010) which is located approximately 300m west of the site, and to the west of the N11.

Other waterbodies that are located within the Zol of the project site include; Stradbrook Stream (Brewery Stream\_010), County Brook (Dargle\_030), Rathmichael Stream (Dargle\_040) and Loughlinstown River North (Shanganagh\_010). All of these waterbodies, along with their WFD (2016-2021) status and current risk are listed in Table 4-5, and are shown in Figure 4-3 (overleaf). There are no WFD Transitional or Coastal waterbodies within the vicinity of the site.

Table 4-5: WFD status and risk of local watercourses.

WFD Watercourse	WFD Status	WFD Risk	Approximate Distance from Site
Kill of the Grange Stream (Kill of the Grange Stream_010)	Poor	At Risk	0.5km (surface) >0.1km (culverted)
St Bride's Stream (Carrickmines Stream_010)	Good	Not At Risk	0.3km
Stradbrook Stream (Brewery Stream_010)	Poor	Review	3.4km
County Brook (Dargle_030)	Good	Not At Risk	4.6km
Rathmichael Stream (Dargle_040)	Good	Not At Risk	3.1km
Loughlinstown River North (Shanganagh_010)	Good	Not At Risk	1.2km

The proposed development will need to ensure that the proposed construction works will have no negative effect on these water bodies and will support their maintaining 'Good' status into the futures.

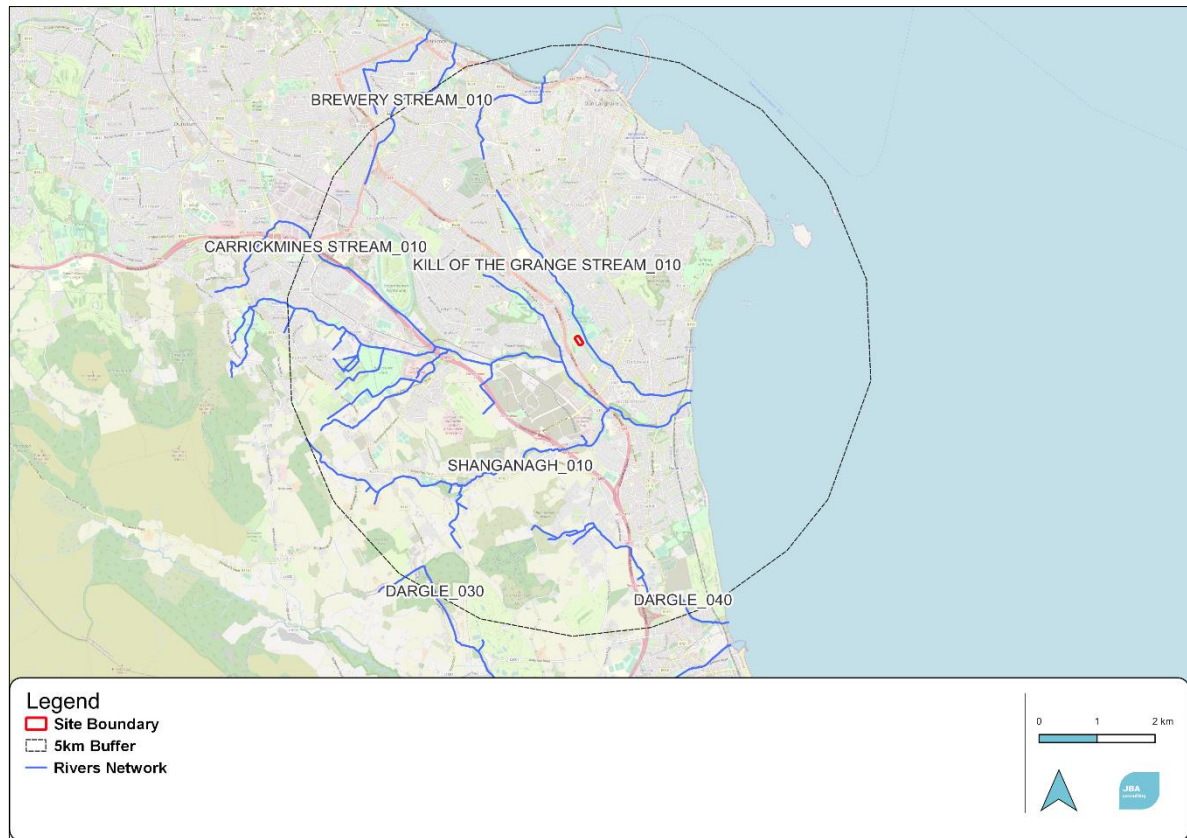


Figure 4-3: Local river waterbodies (OSM, 2024)

#### 4.2.2 Groundwater Status

The entirety of the site is located within the Wicklow (IE\_EA\_G\_076) groundwater body (Figure 4-4, overleaf). The Wicklow groundwater body currently holds a 'Good' WFD status (2016-2021); and is currently labelled as At Risk.

The underlying bedrock of the site is dominated by Granite with Microcline Phenocrysts of the Type 2p microcline porphyritic bedrock formation, and the soil is derived of Till that is derived from Carboniferous limestone. The permeability of the site's area is classified as Low with a low recharge capacity that varies within the site between 7.5% and 15%. The groundwater in the area of the site has an overall Low vulnerability, however the western boundary of the site is bordering on an area of Medium vulnerability (Figure 4-5, overleaf).

The aquifer within the underlying bedrock is considered to be Poor and is 'Generally Unproductive except for Local Zones'. In the context of this site, this means that the groundwater is slow to flow and limited to a poor network of fractures, fissure and joints, none of which are present within or adjacent to the site, and so there is a low level of retention or transferral within the groundwater.

The proposed developed will need to ensure that the proposed construction works will have no negative effect on this groundwater body and will support it maintaining 'Good' status into the future.

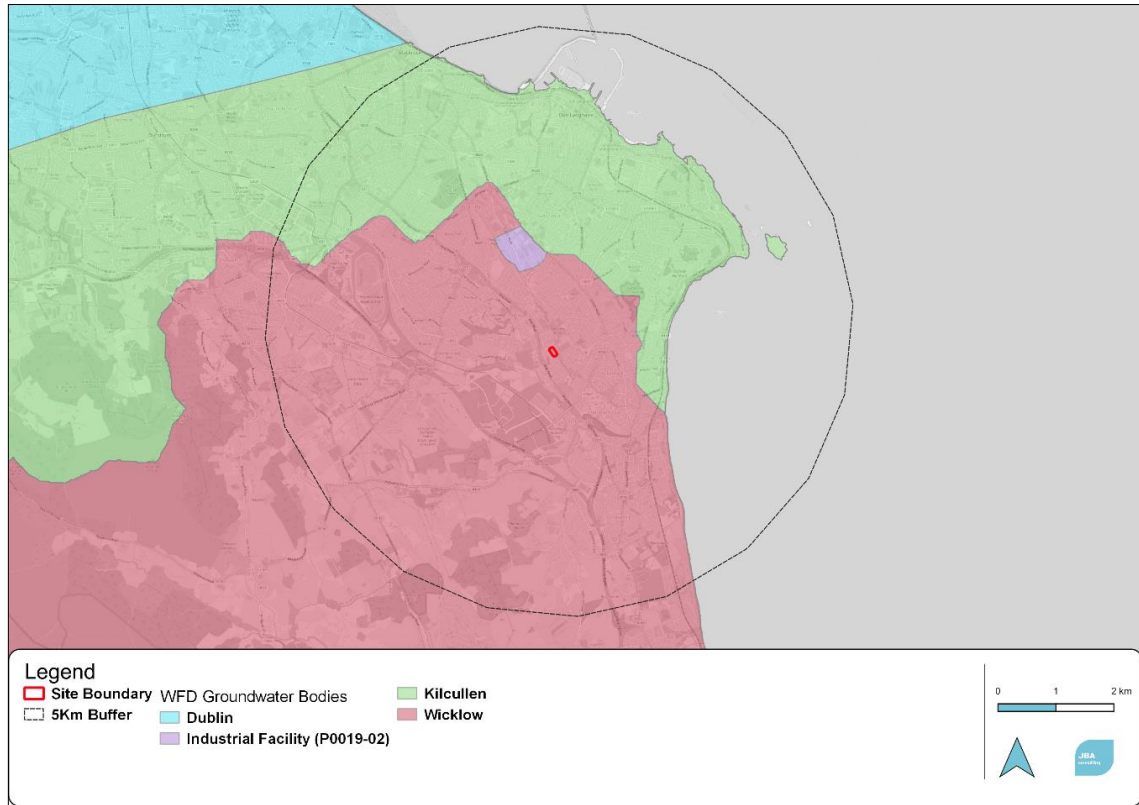


Figure 4-4: Groundwater bodies in the vicinity of site (OSM, 2024)

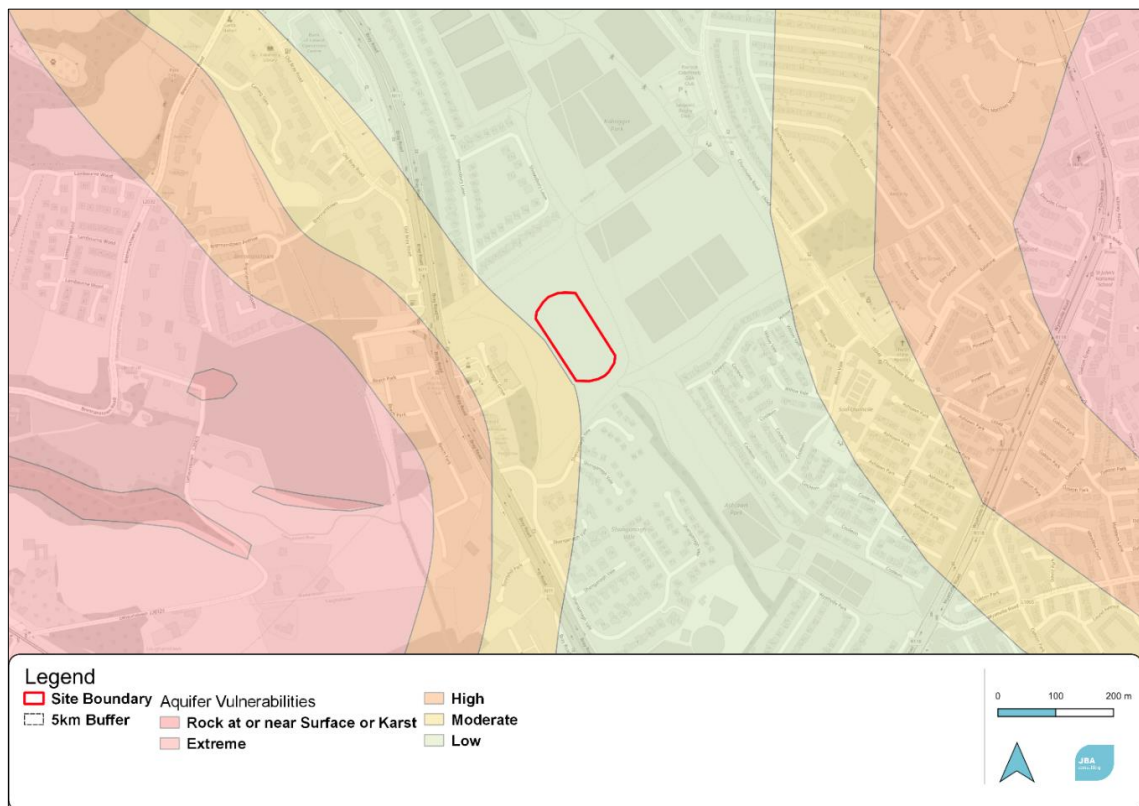


Figure 4-5: Aquifer vulnerability of the site (OSM, 2024)

### 4.3 Site Visits

A site survey was conducted by JBA Ecologists Mark Desmond and Michael Coyle on the 13th of January 2023, Additional surveys were carried out in 2024. During the first bat transect survey on the 21st of May 2024, areas of the amenity grassland within proximity to the site were noted to be managed differently and allowed to develop, resulting in meadow grassland increased number of species. Following this, prior to a bat survey on the 12th of June 2024, an additional recording of plant species was undertaken in these unmanaged area

### 4.4 Habitats

The value of each habitat is based on the site visit. Habitats recorded in and around the site boundary were recorded and are listed in Table 4-6 and displayed in Figure 4-6 .

Table 4-6: Habitats recorded during site visit.

Habitat	Fossitt Code
Buildings and artificial surfaces	BL3
Amenity grassland	GA2
(Mixed) broadleaved woodland	WD1
Treelines	WL2
Dry meadows and grassy verges	GS2

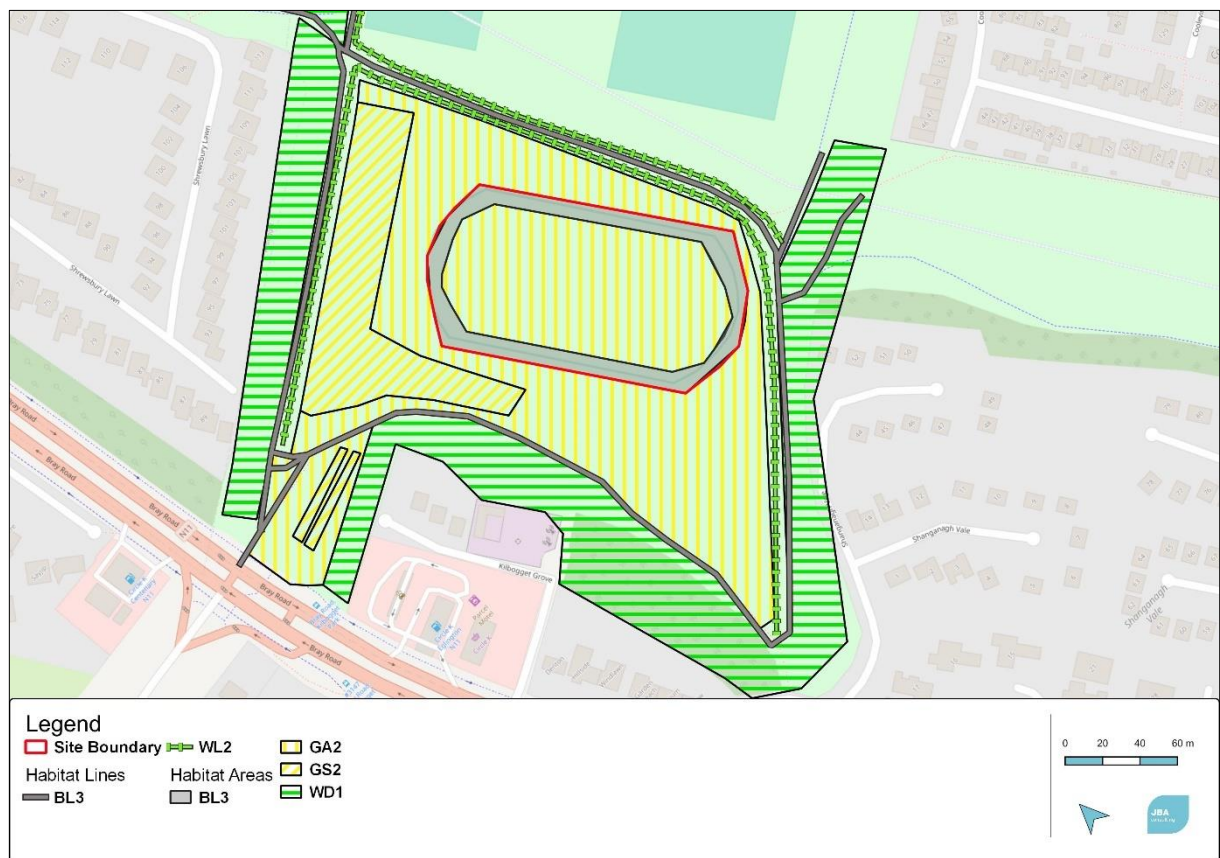


Figure 4-6: Habitat Map (OSM, 2024)

#### 4.4.1 Buildings and Artificial Surfaces (BL3)

The boundary of the site contains athletics track of built ground of tarmac, and a footpath that surrounds the site. These locations had no species growing within them.

In the context of the site and the lands immediately adjacent, this artificial habitat is considered to be of **less than local ecological** importance due to its inability to support ecological communities.

#### 4.4.2 Amenity Grassland (GA2)

The entire area inside of the site's athletics track, and the majority of the site's immediate area is mown and maintained as amenity grassland (Figure 4-7). This area has a poor species diversity. The species that were present include: Perennial Ryegrass *Lolium perenne*, Nettle *Urtica dioica*, Dandelion *Taraxacum* spp. and Creeping Buttercup *Ranunculus repens*.

There is a fenced, rectangular patch of amenity grass that is located adjacent to the south-west boundary of the athletics track. This area is used as a dog exercise area and was not surveyed as it was currently in use by dogs and their owners. From an external point of view a continuation of the same species was seen within the pen. There were also some stands of Gorse *Ulex europaeus* located at the entrance of the pen.



Figure 4-7: Amenity grassland of the athletics track and its surrounds

While there were no birds of conservation concern recorded within the site's boundary during the ecological survey, there were many birds located on adjacent, similar amenity grassland mapped in the dedicated section to wintering birds: Section 4.6.4), which includes a mixture of Seagulls and Oystercatcher *Haematopus ostralegus*. Light-bellied Brent Goose *Branta bernicla* were also found in the adjacent amenity grasslands and are known to frequent large parks in Dublin to graze on short turf grass during the latter half of the winter months (Enviroguide Consulting, 2019).

There is a stretch of amenity grassland that is located between the fenced-off dog exercise area and the athletics track that has new sapling trees present including Alder *Alnus glutinosa*, Hawthorn *Crataegus monogyna*, Birch *Betula pubescens*, Scots Pine *Pinus sylvestris* and Oak *Quercus* spp.

Therefore, in the context of the site and the lands immediately adjacent, this habitat grassland habitat is considered to be of **high local ecological importance** due to the potential of the habitat to provide suitable foraging grounds for wintering birds.

#### 4.4.3 (Mixed) broadleaved woodland - WD1

There is a large area of mixed broadleaved woodland located along the south-west, and north of the site. These areas contain the tree species Sycamore *Acer pseudoplatanus*, Holly *Ilex aquifolium*, Dogwood *Cornus sanguinea*, Alder, Elder *Sambucus nigra* and Hawthorn, and an understory of Cow Parsley *Anthriscus sylvestris*, Bramble *Rubus fruticosus*, Angelica *Angelica sylvestris*, Cotoneaster *Cotoneaster* spp., Dock *Rumex* spp., Common Ivy *Hedera helix*, Tutsan *Hypericum androsaemum*, Alexanders *Smyrnium olusatrum*, Chickweed *Stellaria media* and Lords and Ladies *Arum maculatum*. These woodland areas were also assessed as having poor bat roost potential.

In the context of the site and the land immediately adjacent, this woodland habitat is considered to be of **high local ecological importance** due to the mature trees' potential for supporting breeding birds, while the thick undergrowth provides refuge and foraging for terrestrial mammals.

#### 4.4.4 Treelines - (WL1)

There is an immature treeline north-west and east of the site along the pathways, and a mature treeline south of the site. The immature treeline contains stands of Ash and Field Maple *Acer campestre*, with Perennial Ryegrass, White Clover *Trifolium repens* and Dandelion growing in between the trees. These trees are immature and do not have any bird nesting potential.

In the context of the site and the lands immediately adjacent, this treeline habitat is considered to be of **high local ecological importance** due to the potential of treelines provide foraging opportunities for bats, birds and invertebrates.

#### 4.4.5 Dry meadows and grassy verges (GS2)

In the revisit to the site on the 12th of June 2024, the site had developed a meadow grassland (Figure 4-8, Figure 4-9) not previously seen in the initial survey of January 2023. This meadow area had a much wider range of floral diversity present within it, with many indicator species of the lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*) Annex I habitat [6510].



Figure 4-8: Meadow habitat from the north looking west along the site boundary





Figure 4-9: Meadow habitat along the south the athletics track

Positive indicators of a high-quality grassland habitats were found. These include Meadow Buttercup *Ranunculus acris*, Smooth Hawk's-beard *Crepsis capillaris*, Tufted Vetch *Vicia cracca*, Red Clover *Trifolium pratense* Ribwort Plantain *Plantago lanceolata*, Hogweed *Heracleum sphondylium* and Knapweed *Centaurea nigra*, while the site also contains a small collection of high-quality indicator species such as Yellow Rattle *Rhinanthus minor*, Oxeye Daisy *Leucanthemum vulgare*, Bird's Foot Trefoil *Lotus corniculatus*, and most notably, a scattering of Bee Orchid *Ophrys apifera* (Figure 4-10).



Figure 4-10: Bee Orchids present within the meadow grassland

In addition to these positive indicators and high-quality indicator species, the meadow area also contains a large spread of negative indicator species including Cock's Foot *Dactylis glomerata*, Perennial Ryegrass *Lolium perenne*, Ragwort *Senecio jacobaea*, False Oat-grass *Arrhenatherum elatius*, Curly Dock *Rumex crispus* and Creeping Thistle *Cirsium arvense*.

Additional species that are neither positive, nor negative indicator species include Yorkshire Fog *Holcus lanatus*, Smooth Sowthistle *Sonchus oleraceus*, Creeping Buttercup *Ranunculus repens*, Bush Vetch *Vicia sepium*, Yarrow *Achillea millefolium*, Dandelion spp. Lesser Trefoil *Trifolium dubium*, Timothy *Phleum pratense*, Chickweed *Stellaria media*, Common Plantain *Plantago major*, Creeping Cinquefoil *Potentilla reptans*, Common Daisy *Bellis perennis*, Crested Dogstail *Cynosurus cristatus*, Cow Parsley *Anthriscus sylvestris*, Common Bent *Agrostis capillaris* and Creeping Bent *Agrostis stolonifera*.

While the site contains six different negative indicator species, it would not qualify as an Annex I habitat. In the context of the site and the lands immediately adjacent, this meadow habitat is still considered to be of **regional level ecological importance** due to its otherwise high quality and high floral diversity within an urban / suburban setting.

## 4.5 Protected Flora

There were no floral species listed under the Flora (Protection) Order 2022 recorded by the JBA Ecologist during the ecological walkover survey and it is not expected that rare flora would be present due to the amenity grassland function of the overall site. Furthermore, the NBDC shows no record of any protected flora species being present within site or its immediate vicinity (NBDC, 2024). The site is considered of **negligible ecological importance for protected floral species at the site**.

## 4.6 Protected Fauna

### 4.6.1 Mammals

There were no direct or indirect evidence of fauna species listed under the Wildlife Act 1976 and its Amendments or the EU Habitats Directive recorded by the JBA Ecologists during the ecological walkover survey. Mammals protected under the Wildlife Act that have been recorded under the NBDC within 2km of the site include:

- Badger *Meles meles*
- Red Squirrel *Sciurus vulgaris*
- Hedgehog *Erinaceus europeaus*
- Pygmy Shrew *Sorex minutus*

Additionally, NBDC records of mammals within an extended 5km are found within Appendix C

While there was no evidence of these species, under the precautionary principal, they will still be examined in the mitigation section of this report. **The proposed site is considered to be of high local ecological importance for these species.**

### 4.6.2 Bats

#### Desk Study

Bat species protected under the Wildlife Act and/or the EU Habitats Directive have been recorded under the NBDC within 2km of the site in the previous 10 years include Brown Long-eared Bat *Plecotus auritus*, Daubenton's Bat *Myotis daubentonii*, Leisler's Bat *Nyctalus leisleri*, Nathusius' Pipistrelle *Pipistrellus nathusii* and Soprano Pipistrelle *Pipistrellus pygmaeus*. Species within the BATLAS Report 2020 (Pickett, S., 2019) indicate the presence of Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle, Leisler's Bat and Daubenton's Bat within the 10km grid of the site. However, given the absence of a water feature on the site, Daubenton's Bat is unlikely to be found within the site itself.

#### Preliminary Bat Roost Survey

The ecological walkover survey carried out on-site found no evidence of any potential bat roosting features within or directly adjacent to the proposed development site, however, it was noted that there were a number of suitable foraging and commuting habitats in the area of the parkland, and as such two bat activity surveys were conducted to assess activity levels.

### Bat Activity Surveys

JBA Ecologists Michael Coyle and Matthew Hosking conducted two walking transect surveys along the pathways surrounding the athletics track. These surveys were conducted on the 21st of May and the 12th of June 2024. Static bat recorders were deployed on those dates and picked up after a number of days.

The transect routes (as well as the bats recorded during the transects), and the positioning of the static detectors are shown in (Figure 4-11).

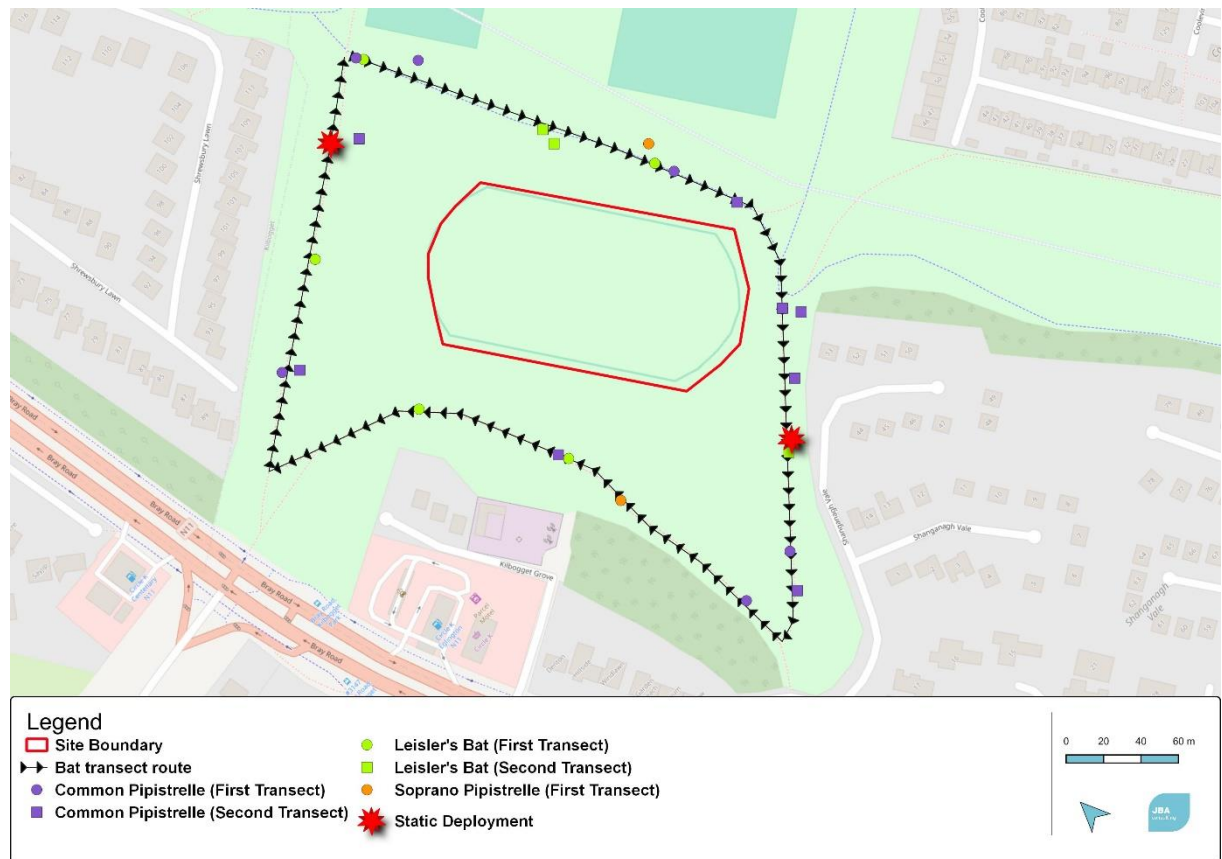


Figure 4-11: Bat transect route, species encountered during the transect survey and the locations of the bat statics (Note the orientation of the diagram displayed in the lower left corner of the image)

### Transect Bat Activity Surveys

During the transect surveys, Common Pipistrelle and Leisler's Bat were recorded both foraging within and commuting through the site, while Soprano Pipistrelle was only recorded commuting along the east boundary of the site. It was noted during these surveys that the woodland area to the south-east of the site was lit up by existing lighting, with a lux level varying between 11.4lux to 27.8lux. However, bats were still recorded commuting through this south-east woodland, by flying above the lit-up area during the second transect survey on 24th June. Otherwise the impact of this lighting was restricted throughout the rest of the site, given the cawling and orientation of the existing lighting columns along the local footpath surrounding the running track and soccer pitch, in addition to the screening effect of the local treelines which prevented any overspill from deterring local bat activity (Figure 4-12, Figure 4-13).



Figure 4-12: The lighting along the footpath south of the pitch (facing south-west), with the limited overspill of the street lights allowing for a dark corridor to be retained



Figure 4-13: The lighting along the footpath east of the pitch (facing north-west), with the limited overspill of the street lights allowing for a dark corridor to be retained

### Static Bat Activity Surveys

A static detector survey was undertaken by JBA using a single bat detector from the 21st to the 28th of May 2024. The detector was installed on a tree in the northern woodland of the site, oriented towards the athletics track (Figure 4-11). A high passage of bats (1,507 passes) was recorded within the site, including the three species recorded during the transect walkover. The daily passages of bats are shown in (Table 4-7).

During the week of the 12th to the 17th of June 2024, a detector was placed in the same location and orientation as the initial survey, in addition to a second static detector in the area of high light levels to the east of the site (see Figure 4-11). This was done to gain a comparative view of the north and south of the pitch, from the perspective of high and low light impact. The June deployed static recorded a much lower passage of bats in the repeat location in the north of the site, recording a total of 341 passes of bats. This number, while much lower than 1,507 passes within May, is still a moderate level of bat passes for bat foraging and passing. The daily passages of bats are shown in (Table 4-8).

The deployment of the second static within the southern end of the site showed an overall very low passage of bats, with a total passage of only 46 bats. This detector did not record any Leisler's Bat during its deployment, and two of its days recorded bat passages below 10. The daily passages of bats are shown in Table 4-9 and highlight the impact of the existing high level of lighting within the site. Overall, the site has been valued as having low-to-moderate foraging and commuting suitability.

The proposed site has been valued as having a being of **high local ecological importance for bats**, given the observed foraging and commuting activities within the treelines and grassland areas, with the high fidelity shown within the bat static detectors' deployment particularly in the north of the site.

Table 4-7: Bat passes recorded from the 21st to 27th of May using the static in the shaded woodland north of the site

Species	21st May	22nd May	23rd May	24th May	25th May	26th May	27th May	Total
Leisler's Bat	84	450	73	20	8	18	10	663
Common Pipistrelle	77	254	106	26	9	48	20	540
Soprano Pipistrelle	9	152	85	6	10	33	9	304
Total	170	856	264	52	27	99	39	1507

Table 4-8: Bat passes recorded from the 12th to 16th of June using the static in the shaded woodland north of the site

Species	12th June	13th June	14th June	15th June	16th June	Total
Leisler's Bat	3	30	9	27	33	102
Common Pipistrelle	8	17	12	81	19	137
Soprano Pipistrelle	8	52	4	3	35	102
Total	19	99	25	111	87	341

Table 4-9: Bat passes recorded from the 12th to 16th of June using the static in the woodland in the area of high light levels south of the site

Species	12th June	13th June	14th June	15th June	16th June	Total
Leisler's Bat	0	0	0	0	0	0
Common Pipistrelle	17	7	7	3	2	36
Soprano Pipistrelle	2	4	4	0	0	10
Total	19	11	11	3	2	46

#### 4.6.3 Breeding Birds

There were no breeding birds located within the boundary of the site during the ecological walkover survey. However, breeding birds are expected to use the adjacent treelines and woodlands for perching, foraging and nesting.

NBDC records from the past 10 years within a 2km radius, include records of the following Amber List bird species: Kingfisher *Alcedo atthis* (Breeding), Linnet *Linaria cannabina* (Breeding), Starling *Sturnus vulgaris* (Breeding), House Martin *Delichon urbicum* (Breeding), House Sparrow *Passer domesticus* (Breeding), Mediterranean Gull *Larus melanocephalus* (Breeding), Mute Swan *Cygnus olor* (Breeding and Wintering), Sand Martin *Riparia riparia* (Breeding), Barn Swallow *Hirundo rustica* (Breeding) and Northern Gannet *Morus bassanus* (Breeding).

NBDC records within 2km include the additional Red List bird species: Eurasian Curlew *Numenius arquata* (Breeding and Wintering) and Swift *Apus apus* (Breeding).

Wood Pigeon *Columba palumbus* and Little Egret *Egretta garzetta*, are also recorded within the NBDC Records 2km from the site, but their threat status is of Least Concern. NBDC records of birds within an extended 5km is found within Appendix C.

**The proposed site has been valued as being of high local ecological importance for breeding birds, given the nesting and foraging opportunities within the woodlands adjacent to the site.**

#### 4.6.4 Wintering Birds

During the survey there were no wintering birds recorded within the boundary of the site. However, there were wintering birds of Green, Amber and Red conservation concern (Gilbert et al., 2021) located within the nearby football pitches. In the football pitches located approximately 360m to the north-east of the site, there was a flock of approximately 25 Oystercatcher *Haematopus ostralegus* (Red, Breeding and Wintering). Closer to the site, approximately 260m east of the site boundary there is a football pitch that was heavily waterlogged, and contained approximately 350 Seagulls, including a mixture of Herring Gull *Larus argentus* (Amber, Breeding and Wintering), Black-Headed Gull *Larus ridibundus* (Amber, Breeding and Wintering) and Common Gull *Larus canus* (Amber, Breeding and Wintering), while within this flock there was also a single Great Black-backed Gull *Larus marinus* (Green, Breeding and Wintering). Approximately 90m east of the site, there was a sighting of an additional 35 Oystercatcher, and approximately 120 Light-Bellied Brent Geese *Branta bernicla hrota* (Amber, Wintering). Brent Geese are known to frequent large parks in Dublin to graze on short turf grass during the latter half of the winter months (Enviroguide Consulting, 2019). The locations of the bird flocks found on site are shown in Figure 4-14.

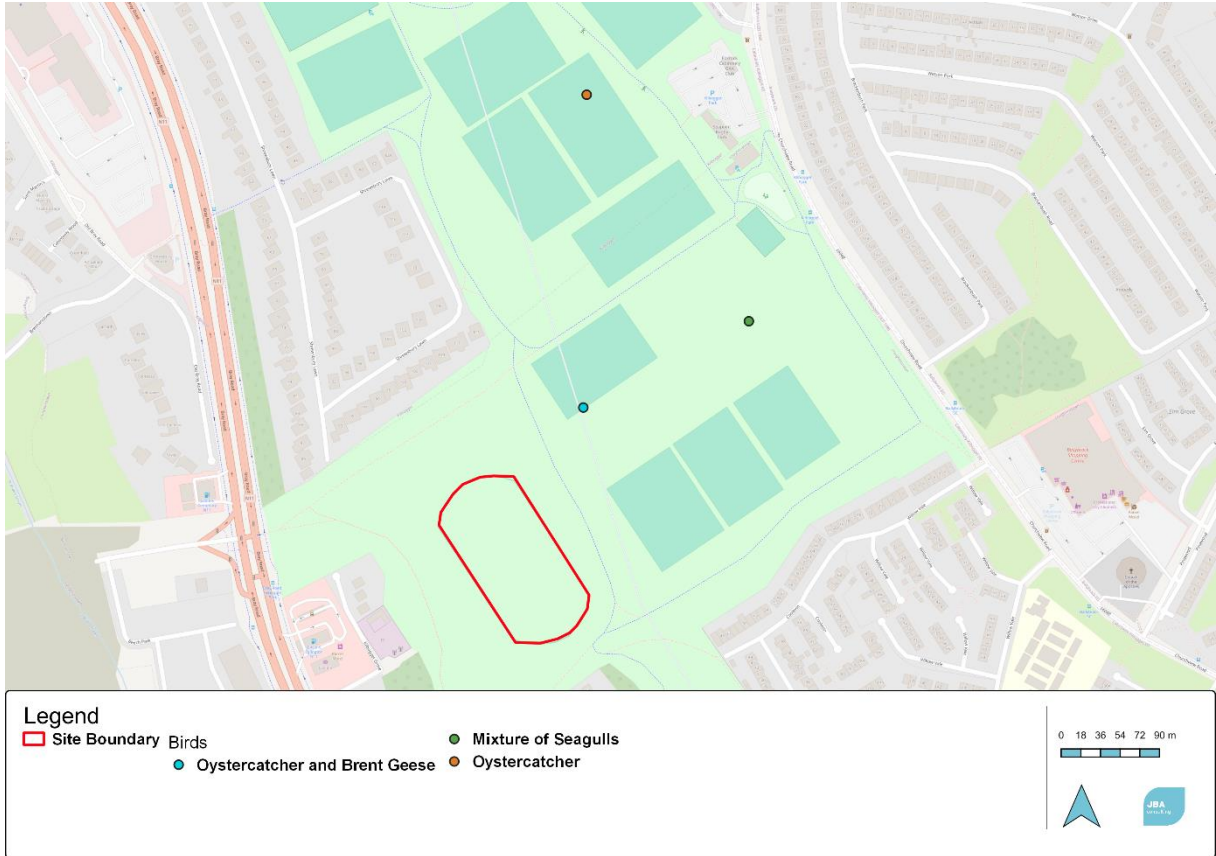


Figure 4-14: The location of flocks of birds encountered during the site survey (OSM, 2023)

DLRCC also provided unpublished data on wintering birds in Kilbogget Park, with the following species recorded in the winter of 2019-2020: Brent Goose, Oyster Catcher, Black-headed Gull, Common Gull, Herring Gull and Great Black-backed Gull, species counts for these surveys are listed in Table 4-10.



Table 4-10: Bird survey results during the winter of 2019/2020 (Source: DLRCC)

Date	Brent Goose	Oystercatcher	Black-tailed Godwit	Curlew	Black-headed Gull	Common Gull	Herring Gull	Great Black-backed Gull
14/11/2019	0	91	0	0	86	0	67	2
21/11/2019	0	0	0	0	770	0	20	0
03/12/2019	0	91	0	0	29	0	0	0
05/12/2019	0	0	0	0	150	0	12	0
09/12/2019	42	60	0	0	5	0	0	0
17/12/2019	0	86	0	0	6	1	0	0
19/12/2019	26	106	0	0	230	0	25	0
30/12/2019	17	97	0	0	122	2	35	12
07/01/2020	155	116	0	0	315	0	70	4
17/01/2020	175	80	0	0	138	0	23	2
06/02/2020	95	57	0	0	nc	nc	nc	nc
13/02/2020	285	77	0	0	138	0	0	0
17/02/2020	352	12	0	0	94	0	30	0
20/02/2020	189	31	0	0	45	0	18	1
27/02/2020	115	57	0	0	93	0	41	0
03/03/2020	0	49	0	0	51	9	28	0
06/03/2020	0	32	0	0	48	5	2	0
17/03/2020	0	33	0	0	5	1	6	0

It has been noted by members of DLRCC through anecdotal evidence that more recently, the Brent Goose have used the fenced-off area of the athletics track in the centre of the site (Figure 4-15) for foraging.



Figure 4-15: The area of the athletics track in the left of the photo, showing the fenced boundary around an amenity grass patch that the geese forage in

The proposed site has been valued as being of **international ecological importance** for wintering birds which includes QI species such as Brent Goose.

#### 4.6.5 Amphibians

There were no direct or indirect evidence of amphibian species listed under the Wildlife Act 1976 and its Amendments or the EU Habitats Directive recorded by the JBA Ecologists during the ecological walkover survey. Amphibians protected under the Wildlife Act that have been recorded under the NBDC within 2km of the site include Smooth Newt and Common Frog, while the Common Frog is also under additional protection of Annex V of the EU Habitats Directive.

In the context the site and the surrounding area, the proposed site is considered to be of **less than local ecological importance** for this species group given the lack of resources available for amphibians.

#### 4.6.6 Reptiles

There were no direct or indirect evidence of faunal species listed under the Wildlife Act 1976 and its Amendments or the EU Habitats Directive recorded by the JBA Ecologists during the ecological walkover survey. Reptiles protected under the Wildlife Act that have been recorded under the NBDC records within 2km in the past 10yrs of the site include Common Lizard *Zootoca vivipara*.

Common Lizard is found primarily in coastal, heathland and rural garden environments, therefore in the context of the site and the surrounding area, the proposed site is considered to be of **low local ecological importance** given the lack of suitable habitat.

#### 4.6.7 Invertebrates

There were no direct or indirect evidence of invertebrate species listed under the Wildlife Act 1976 and its Amendments or the EU Habitats Directive recorded by the JBA Ecologists during the ecological walkover survey.

NBDC shows a record of the protected invertebrate species Marsh Fritillary *Euphydryas aurinia* located within 2km of the site within the last 10 years. However, the site and its surrounding area is considered of **low local ecological importance for protected invertebrate species at the site**, given the floral resources on the site restricted to the small meadow area.

#### 4.7 Invasive Non-native Species (On-site)

No invasive non-native High or Medium Impact species currently under the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011 species were recorded on-site during the ecological walkover. There is a list of previously reported species within a 5km radius of the site listed in Appendix C (NBDC, 2023).

The development is not anticipated to contribute to the spread of invasive species.

#### 4.8 Screening of Designated Sites & Ecological Features

The screening of designated sites and ecological features identified during the desktop study and ecological survey are given in Table 4-11 (overleaf). Sites and features screened out are not considered further in this assessment. Ecological features carried forward are assessed for potential impact during construction and operation in the following sections.

Table 4-11: Summary of ecological features and the screening assessment.

Designated site / Ecological feature	Value	Screening	Reasoning
South Dublin Bay SAC	International	Screened out (lack of connectivity)	See Appropriate Assessment Screening Report
South Dublin Bay and River Tolka Estuary SPA	International	Screened out (lack of connectivity)	See Appropriate Assessment Screening Report
Rockabill to Dalkey Island SAC	International	Screened out (lack of connectivity)	See Appropriate Assessment Screening Report
Dalkey Island SPA	International	Screened out (lack of connectivity)	See Appropriate Assessment Screening Report
South Dublin Bay pNHA	National	Screened out	lack of connectivity
Dingle Glen pNHA	National	Screened out	lack of connectivity
Dalkey Coastal Zone and Killiney Hill pNHA	National	Screened out	lack of connectivity
Loughlinstown Woods pNHA	National	Screened out	lack of connectivity
Buildings and artificial surfaces	Less than local	Screened out	Low value habitat with no impact
Amenity grassland (improved)	Less than local	Screened out	Low value habitat
(Mixed) broadleaved woodland/Scattered trees and parkland	High local	<b>Screened in</b>	<b>Offers nesting and foraging opportunity for various species</b>
Treelines	High local	<b>Screened in</b>	<b>Offers nesting and foraging opportunity for various species</b>
Dry meadows and grassy verges	National	<b>Screened in</b>	<b>High quality grassland with high floral diversity</b>
Protected Flora	Less than local	Screened out	No protected flora present, nor recorded in the vicinity of the site
Mammals	High local	<b>Screened in</b>	Grassland, woodland and treeline offers commuting and foraging habitat
Bats	High local	<b>Screened in</b>	Treelines and grassland offer foraging and

Designated site / Ecological feature	Value	Screening	Reasoning
			commuting opportunity
Breeding	High local	<b>Screened in</b>	Treelines offer nesting and foraging habitat
Wintering birds	International	<b>Screened in</b>	Foraging potential within the grasslands for wintering birds (Brent Goose, Oystercatcher and gulls)
Amphibians	Less than local	Screened out	NA
Reptiles	Less than local	Screened out	NA
Invertebrates	Low local	<b>Screened in</b>	Limited value of floral resources
Invasive species	-	Screened out	Not within the site of works

## 5 Other Relevant Plans and Projects

### 5.1 Cumulative Effects

As part of this EclA, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative impacts must also be considered at this stage.

### 5.2 Plans

The following projects or plans were identified as potential sources of cumulative impacts:

- Dún Laoghaire Rathdown County Development Plan 2022-2028
- Greater Dublin Drainage Strategy
- Third Cycle River Basin Management Plan for Ireland 2022-2027
- Planning Applications (retrieved from Data.gov.ie - Planning Application Sites, July 2024)

#### 5.2.1 Dún Laoghaire Rathdown County Development Plan 2022-2028

The County Development Plan (DLRCC, 2022b) has a vision and policy statement that aims to continue to facilitate appropriate levels of sustainable development predicated on the delivery of high quality community, employment and recreational environments - allied to the promotion of sustainable transportation and travel patterns - all the while protecting Dún Laoghaire–Rathdown's unique landscape, natural heritage and physical fabric, to ensure the needs of those living and working in the County can thrive in a socially, economically, environmentally sustainable and equitable manner.

An Appropriate Assessment Screening and an Appropriate Assessment Natura Impact Statement (NIS) was carried out on the plan. This concluded that there are no likely significant direct, indirect or secondary impacts of the project on any Natura 2000 sites (DLRCC, 2022c).

**Overall, the Dún Laoghaire Rathdown Council Development Plan 2022-2028 is not considered to adversely impact any Natura 2000 site, nor is it expected to contribute to any cumulative or in-combination effects.**

#### 5.2.2 Greater Dublin Drainage Strategy

The Greater Dublin Drainage Strategy sets out the strategic planning for the development of waste water treatment in the Greater Dublin area in relation to the Ringsend WWTP Upgrade, Greater Dublin Drainage Project and associated wastewater network drainage projects (Irish Water, 2018). The Ringsend WWTP Upgrade includes plans to expand the WWTP to its ultimate capacity, together with associated network upgrades required. The Greater Dublin Drainage Project is planned to relieve both the Ringsend WWTP and network loading by construction of a new WWTP at Clonsaugh, an orbital sewer and provision of an outfall pipe discharging 1km north-east of Ireland's Eye. The Ringsend WWTP upgrade is in progress and carried out in stages, with an increased capacity of 400,000 PE by Q1 2020 and the ultimate capacity of 2.4 million PE to be in operation by 2024 (Irish Water, 2018). The Greater Dublin Drainage Project is strategically important to the Dublin Region in that it will provide capacity for residential and commercial growth (Irish Water, 2018).

**Overall, the Greater Dublin Drainage Strategy is not considered to adversely impact any Natura 2000 site, nor is it expected to contribute to any cumulative or in-combination effects.**

#### 5.2.3 River Basin Management Plan for Ireland 2018-2021 / 2022-2027

The 2nd cycle River Basin Management Plan (RBMP) for Ireland 2018-2021 sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2021 (DoHPLG, 2018a). Changes from previous River Basin Management Plans is that all River Basin Districts are merged as one national River Basin District. The Plan provides a more coordinated framework for improving the quality of our waters — to protect public health, the environment, water amenities and to sustain water-intensive industries, including agri-food and tourism, particularly in rural Ireland.

The first cycle of River Basin Management Plans included the Eastern River Basin District - River Basin Management Plan 2009 – 2015 (WFD, 2010). The plans summarised the waterbodies that may not

meet the environmental objectives of the WFD by 2015 and identified which pressures are contributing to the environmental objectives not being achieved. The plans described the classification results and identified measures that can be introduced in order to safeguard waters and meet the environmental objectives of the WFD;

- Prevent deterioration of water body status.
- Restore good status to water bodies.
- Achieve protected areas objectives.
- Reduce chemical pollution of water bodies

The River Basin Management Plan for Ireland (2018-2021) outlines the new approach that Ireland will take to protect our waters over the period to 2021. It builds on lessons learned from the first planning cycle in a number of areas:

- stronger and more effective delivery structures have been put in place to build the foundations and momentum for long-term improvements to water quality
- a new governance structure, which brings the policy, technical and implementation actors together with public and representative organisations. This will ensure the effective and coordinated delivery of measures.

Ireland's 3rd River Basin Management Plan 2022-2027 (EPA 2021) was out for public consultation until March 31st 2022. The Consultation report was published in July 2022. Following review of the submissions, the DHLGH will commence a review and where necessary update the draft RBMP with a view to finalisation and publication in Q3/Q4 of 2022.

The 3rd cycle draft Catchment Reports were published in August 2021. The draft Catchment Reports provides a summary of the water quality assessment outcomes for respective catchments, including status and risk categories, significant threats and pressures, details on protected areas and a comparison between cycle 2 and cycle 3.

The third cycle draft Catchment Report for Ovoca-Vartry Bay Catchment (EPA, 2021) identified that between Cycles 2 and 3 there has been an overall slight improvement in the catchment's status. The overall change in quality between Cycles 2 and 3 include an increase in three waterbodies achieving a High Status, however there was also an increase in one waterbody that achieved a Bad status. The number of waterbodies which are achieving a Good and Poor statuses remains unchanged between Cycles, while there is a reduction of waterbodies achieving a moderate status by three. There remains to be eighteen waterbodies that are unassigned.

**The Third Cycle River Basin Management Plan for Ireland 2022-2027 is not anticipated to contribute to cumulative or in-combination effects.**

### 5.3 Other Projects

In addition to the project at Kilbogget Park running track and soccer pitch, there is a similar upgrading of grass pitches at 16 other sites within the Dún Laoghaire-Rathdown area. A list of all sites is included below:

Lot 1 - Kilbogget Park Athletics, Kilbogget Park Soccer and GAA

Lot 2 - Blackthorn Park, Moreen Park, Rosemount Park, Holly Park

Lot 3 - Stonebridge x 2 (GAA & Soccer), Thomastown x 2 (GAA & Juvenile), Cabinteely Park (Bray Road)

Lot 4 - Broadford Park x 2 Soccer, Deerpark x 4 (2 x GAA, 2 x soccer)

Of these sites to be refurbished: Kilbogget Park Soccer and GAA, Holly Park, Stonebridge Parks, Thomastown Parks and Cabinteely Park are situated within 5km of Kilbogget Athletics Park. AA Screenings for each of these sites have been carried out on these projects. Each of these AA Screenings concluded that there are no likely significant direct, indirect or secondary effects of the project on any Natura 2000 sites. The refurbishment of Kilbogget Soccer and GAA pitch is ongoing and

projected to be at 85% completion. Kilbogget Soccer and GAA is also anticipated to undergo a similar installation of flood lighting during 2024 and has undergone its own AA Screening and is included.

According to the online database of planning applications, there are no other projects dating back three years, which are not retention applications, home extensions and/or internal alterations that have the potential overlapping construction and short-term residual impact phases with the proposed development.

### 5.3.1 Other Projects

An assessment of local projects in the vicinity of the new sports facility and the potential for cumulative impacts was also conducted. These projects are listed in (Table 5-1) below, none of which were assessed as resulting in potential in-combination or cumulative impacts given their scope of works, and proximity to local Natura 2000 sites or.

**Overall, additional projects not considered to adversely impact any Natura 2000 site, nor are they expected to contribute to any cumulative or in-combination effects.**

## 5.4 Summary

The County and Local Development Plan; Greater Dublin Drainage Strategy, River Basin Management Plan and other local projects are considered in combination with the currently proposed project in the Screening Assessment section below.



Table 5-1: Projects granted planning permission since June 2021 in vicinity of proposed site.

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
DZ24A/0017	Townlands of Laughanstown and Cherrywood, Macnebury - Development Area 7 - Cherrywood, Dublin 18	Registered	Undecided (as of 11 / 06 / 2024 )	<p>The site of the development proposed is generally bound by Bishop Street to the north, Cherrywood Avenue to the east, the M50 to the west and development permitted under Reg. Ref. DZ22A/1021 and the Wyattville Link Road to the south.</p> <p>The development proposed consists of a residential development consisting of 200 no. residential apartment units (total c. 27,308 sqm GFA) accommodated in 3no. blocks, ranging in height from 4-5 storeys on a net development area of approximately 0.89 ha.</p> <p>The overall development proposed comprises of the following:</p> <ul style="list-style-type: none"> <li>• 200 no. apartment units in 3no. blocks comprising: <ul style="list-style-type: none"> <li>o Block A1 – 68no. units (12no. 1-bed, 41no. 2-bed and 15no. 3-bed)</li> <li>o Block A2 – 54no. units (14no. 1-bed, 39no. 2-bed and 1no. 3-bed)</li> <li>o Block A3 – 78no. units (14no. 1-bed, 49no. 2-bed and 15no. 3-bed)</li> </ul> </li> <li>• Provision of 241no. car parking spaces allocated to the proposed development. The lower ground floor accommodates 139 no. car parking spaces and 102 no. spaces are accommodated at basement level. 10 no. of these spaces are accessible and 48 no. are for Electric Vehicles.</li> <li>• Provision of 264 no. bicycle parking spaces, of which 220 no. are long stay and 44 no. are short stay and 10 no. motorcycle parking spaces are provided.</li> <li>• The provision of c. 1,645 sqm of courtyard gardens of which c.1,456 sqm is private communal amenity space;</li> <li>• Vehicular Access serving the proposed development is via Cherrywood Avenue;</li> <li>• all associated and ancillary site development and infrastructural works, including the provision of bike stores and bin stores, ESB sub-stations / switch room, public lighting, private amenity space, hard and soft landscaping and boundary treatment works.</li> </ul> <p>The proposed development also consists of minor revisions to the Phase 1 development permitted under Reg. Ref. DZ22A/1021 comprising of landscaping amendments to civic park, relocation of the foul water outfall from Bishop Street to Cherrywood Avenue together with all ancillary works, minor relocation of attenuation tanks located in the civic park and relocation of car share spaces (5no.) from surface level within the permitted Phase 1 development to the basement of the proposed Phase 2A development.</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site
DZ22A/1025	Cherrywood Avenue, Lands within the townlands of Glebe and Cherrywood, Dublin 18	Permission Granted	02 November 2024	<p>Permission for the following, The development will consist of the following:</p> <p>All site clearance and enabling works required to implement the development, including removal of existing car parking and hardstanding within application site boundary.</p> <p>Construction of a residential development of 44 no. units, comprising 8 no. four bedroom houses and 18 no. duplex buildings, containing 24 no. three bedroom units and 12 no. two bedroom units. The overall gross floor area of the residential development is 4,875 sqm. The proposed development will also include the provision of communal and private open space including gardens, terraces and balconies. Provision of landscaped open space (365 sqm) footpaths (including maintaining and upgrading an existing pedestrian link between Glencarraig and Cherrywood Avenue) landscaping works and boundary treatments. Provision of vehicular access arrangements from Cherrywood Avenue and internal access arrangements within the site. Provision of car parking (64 no. spaces) bicycle parking (53 no. spaces), and motorcycle parking (2 no. spaces). The proposed</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
				<p>development includes drainage and services, works to Cherrywood Avenue including services connections, lighting, bin storage, a substation and all associated and ancillary site development works and services. This application relates to development in the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014 (as amended).</p>	
DZ22A/0729	Townlands of, Laughanstown, Brennanstown and, Cherrywood, Dublin 18	Permission Granted	22 September 2023	<p>This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended. The site of the residential development proposed is located in the Cherrywood Planning Scheme area and forms part of Development Area 8 - Tully. The site of this application is generally bounded by Gun and Drum Hill Road to the south, Lehaunstown Lane to the east, development permitted under Reg. Ref. DZ20A/0399 and DZ21A/0664 to the north and other lands within Development Area 8, Tully (Tully Village Centre lands) to the west. The development proposed consists of 57no. residential dwellings (total gross floor area of c.4,842.4 sqm) in a mixture of houses and duplexes, in a range of buildings 2 to 3 storeys in height on a development tile (T3) of approximately 1.14 Ha comprising of the following:</p> <ul style="list-style-type: none"> <li>- 21no. 2 storey houses, consisting of 9no. 2 bedroom houses, 8no. 3 bedroom houses and 4no. 4 bedroom houses.</li> <li>- 36no. duplexes, all 3 bedroom, accommodated in 3 storey buildings.</li> <li>- private communal amenity open space (c. 435 sq m)</li> <li>- a 10m wide ecological buffer alongside Lehaunstown Lane;</li> <li>- provision of internal road network including new road carriageways, pedestrian and cycle facilities;</li> <li>- the provision of 85no. surface level car parking spaces, as well as 1no. car share and 1no. set down space.</li> <li>- 114no. cycle parking spaces;</li> <li>- 2no. motorcycle spaces;</li> <li>- all associated and ancillary site development and infrastructural works, including the provision of bike stores and bin stores, ESB substation / switch room, hard and soft landscaping and boundary treatment works. The proposed development also includes minor amendments to development permitted under DZ15A/0758, DZ20A/0399 and DZ21A/0664</li> </ul> <p>Vehicular access serving the proposed development is via a single new proposed entrance off the existing/permitted Gun and Drum Hill Road and utilises the existing/permitted roads including the wider Phase 1 Roads permitted under DZ15A/0758, including Grand Parade.</p> <p>The development proposed will also utilise the extension of Castle Street westwards to the Ticknick Stream, together with a temporary bus turn back facility and a temporary attenuation pond all in Development Area 3 - Priorsland and its associated drainage connections in the T2 tile (each already permitted and under construction under Reg. DZ20A/0399). The application also provides for the use of existing roads at Gun and Drum Hill Road, Grand Parade, (both permitted and under construction under Reg. Ref. DZ15A/0758) and the existing Valley Drive and the Wyattville Link Road.</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
				The total area of the planning application site amounts to approximately 8.34Ha.	
DZ22A/0681	Cherrywood Avenue, (Adjoining Cherrywood Business Park), Cherrywood, Dublin 18	Permission Granted	28 June 2023	Permission for development at this site. The Development will consist of works within a total application area of 1.048Ha to include the construction of a five storey over ground residential apartment development on a site of 1.02Ha and inclusion of an additional area of 0.028Ha to facilitate site access via Cherrywood Avenue. The Development will comprise: i. 70 no. apartments (34 no. 1-bed apartments, 27 no. 2-bedroom apartments, and 9 no. 3-bedroom apartments). ii. Shared resident support facilities and tenant amenity (total approx. 190m <sup>2</sup> ) comprising a communal lounge, communal workshop, concierge and post room at ground level, and communal amenity space (total approx. 124 m <sup>2</sup> ) in the form of 8 no. winter gardens at the upper levels, and communal open space ( total approx. 2749m <sup>2</sup> ). iii 71 no. car parking spaces (including 4 no. disabled spaces) and 72 no. long stay cycle parking spaces at under-croft level and 6 no. visitor car parking spaces at street level (accessed via Cherrywood Avenue) and 16 no. visitor cycle parking spaces at street level. iv. Creation of 2 no. pedestrian accesses, modifications/improvements to the existing footpath, and works to Cherrywood Avenue to facilitate vehicular access to the site. v. Hard and soft landscaping, boundary treatments, green roof, on-site lighting, ESB substation, plant room, SuDs drainage, piped and other services, and all ancillary site development works necessary to facilitate the development (including the alteration of site levels and the development of the previously permitted pond 5A-1 granted under planning register reference DZ18A/0854). The application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme, 2014 (as amended).	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site
DZ22A/0770	On Lands Development Area 8 (Tully), Cherrywood SDZ, Laughanstown, Dublin 18	Permission Granted	22 March 2023	The application relates to lands within "Development Area 8 -Tully" of the Cherrywood SDZ Planning Scheme 2014 (as amended) and includes the Res2 lands and part of Tully Village Centre west of Castle Street (1.8ha) identified in this application as Plot T11. The proposed development will consist of a residential and mixed use scheme comprising (1) a 4 storey block (Block A: 4,630sqm gross floorspace) with 58no. apartment units (comprising 23no. 1 bed units, 26no. 2 bed units and 9no. 3 bed units), a creche (400sqm) with associated external play area, 3no. retail units (1,043sqm), a community room (194sqm) and HIE (High Intensity Employment) unit (65sqm); (2) 13no. duplex units (comprising 1no. 1 bed unit, 7no. 2 bed units and 5no. 3 bed units). Undercroft parking is provided for 75no. cars below Block A along with plant; bicycle parking and bin storage. 6no. surface car spaces, and 2no. loading spaces are also proposed. Access is provided via Level 5 roads to the southeast, northwest and southwest of the plots and these roads are accessed from Castle Street (permitted and constructed under Reg. Ref. DZ15A/0758). Permission is also sought for hard and soft landscaping, ESB substation, public lighting, boundary treatments and all associated site and development works.	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site
DZ22A/0623	On Lands Development ,Plot T 11, Area 8 (Tully), Cherrywood SDZ, Laughanstown,	Permission Granted	18 January 2023	This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014 (AS AMENDED). Permission for the development on Area 8 (Tully). The application relates to lands within 'Development Area 8-Tully' of the Cherrywood SDZ planning scheme 2014 (AS AMENDED) and includes the RES2 lands and part of Tully Village Centre west of Castle Street (1.8ha) identified in this application as Plot T11. The proposed development will consist of 49no houses (comparing 28no. 3 bed units and 21no. 4 bed units) and associated parking. Access is provided via Level 5 roads to the southeast, northwest and	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
	Dublin 18			southwest of the plot and these roads are accessed from Castle Street (permitted and constructed under Reg Ref DZ15A/0758). Permission is also sought for hard and soft landscaping, ESB substation, Public lighting, boundary treatments and all associated site and development works.	
DZ22A/0133	Townlands of Laughanstown and Cherrywood, Dublin 18	Permission Granted	22 November 2022	<p>Permission on a site. This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended. The site of the residential development is in an area known as TC6 and is located in Cherrywood Planning Scheme Area and forms part of Development Area 2 - Cherrywood. The site of the residential development is generally bounded by Bishop Street to the south, Tully Park to the north and east and a post primary schools site as designed by the Cherrywood Planning Scheme (subject to future development). The development proposed consists of 163 no. residential units (total gross floor area of 18,942 sq. m) in a mixture of apartments, houses, triplexes and maisonettes, in a range of buildings 2 to 3 floors in height, partially over undercroft accommodation/ single level podium basement on a net development area of approximately 2.73 Ha. The overall development proposed comprises of the following: 57no. apartments in 2no. blocks comprising: Block A - 25no. units (13no. 1-bed, 2no. 2- bed three persons and 10no. 2-bed four persons), Block B - 32no. units (18no. 1-bed, 13no. 2-bed four persons and 1no. 3-bed), 56no. 3 storey 3 bedroom triplexes, 19no. 2 storey 2 bedroom maisonettes, 31no. 3 storey 4 bedroom houses. Provision of 223no. car parking spaces allocated to the proposed development. The single level podium accommodates 134no. car parking spaces and 89no. spaces are accommodated at surface level. 8no. of these spaces are accessible and 16no. are for electric vehicles. 207no. bicycle parking spaces located at both surface and basement levels, of which 163no. are long stay and 44no. are short stay, and 9no. motorcycle parking located at basement are also being provided. Provision of level 5 local neighbourhood road, previously permitted and which is being modified by this application, which will link with the existing access point at Bishop Street permitted under Reg Ref: DZ15A/0758. Vehicular access is provided from a single access point from Bishop Street (A2 -F1) as permitted under Reg. Ref. DZ15A/0758. Provision of a pedestrian 'green link' pedestrian accessway to run north/south through the site, connecting Tully Park with Bishop Street. All associated and ancillary site development and infrastructural works, including the provision of bike stores and bin stores, 2no single storey pavilion buildings containing an ESB sub-station and electrical switch room, stair and lift access to basement and short stay bicycle parking spaces in each, hard and soft landscaping and boundary treatment works. The proposed development consists of revisions/modifications to approximately 0.75ha only of the works permitted at Tully Park development (approximately 12.9 Ha overall) (permitted pursuant to Reg Ref DZ15A/0813 and amended by Reg Ref DZ17A/0714, Reg Ref DZ17A/0862, Reg Ref DZ18A/0458 and Reg Ref DZ20A/0946) to comprise of: modifications to the Level 5 local neighbourhood road along boundary with Tully Park immediately adjoining the development. The inclusion of a Part M compliant footpath in the Greenway located alongside the permitted Cherrywood Square / Tully Park Link Access Route linking Bishop Street with Tully Park, amendment to entrance details to 2 no. Tully Park entrances along the Level 5 local neighbourhood road. Tully Park itself, currently under construction, is not affected by the development being proposed. No works are proposed to or in the vicinity of Tully Church Graveyard or within its grounds (Ref: DU026023001 -2; National Monument No. 225) or to the National Monument</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
				including the high crosses (Ref: DU026023003, 4, 7: National Monument NO.216) The proposed development will also utilise the existing road at Bishop Street and the Pond 2B surface water infrastructure (permitted under Reg.Ref DZ15A/0758) and also a permitted road under construction at Cherrywood Avenue (Reg Ref. DZ17A/0862). These already permitted roads and infrastructure amount to approximately 3.14 Ha	
DZ21A/1042	Townlands of Laughanstown, Brennanstown and Cherrywood, Dublin 18	Permission Granted	30 May 2022	<p>Permission. This application relates to the development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended. The site of the residential development proposed is located in the Cherrywood Planning Scheme area and forms part of Development Area 8 - Tully. The site of this application is generally bounded by Tully Park Road and Tully Park to the south-east, development permitted under Reg. ref. DZ20A/0552 to the south-west, Lehaunstown Lane to the north and east and Gun and Drum Hill Road to the north west. The development proposed consists of 122no. residential dwellings (total gross floor area of c.11,748 sqm) in a mixture of houses, duplexes and apartments, in a range of buildings 2 to 3 storeys in height on a site of approximately 1.955 Ha comprising of the following: 34no. 2 and 3 storey houses, consisting of 5no. 2 bedroom houses, 13no. 3 bedroom houses and 16no. 4 bedroom houses . 40no. duplexes, all 3 bedroom 3 storey units, 48no. apartments accommodated in 2no. attached 3 storey over basement blocks (Block A and Block B), consulting of 26no. 1 bedroom apartments and 22no. 2 bedroom apartments, private communal amenity open space (c.853 sq m) a 10m wide ecological buffer alongside Lehaunstown Lane; provision of internal road network including new road carriageways, the provision of a total of 189no. car parking spaces of which 172no. are to serve the residential development proposed (93no. at surface level and 77no. at basement level), 1no. car share and 1no. set down space. 17no. of the proposed car parking spaces in the basement are to be reserved for future development subject of a separate application. 194no. cycle parking spaces; 7no. motorcycle spaces; all associated and ancillary site development and infra structural works, including the provision of bike stores and bin stores, ESB substation / switch room, hard and soft landscaping and boundary treatment works. A temporary drainage connection between the residential development on the T5 tile and the permitted/under construction infrastructure in the T2 tile under Reg. Ref. DZ20A/0399 is also proposed (approximately 0.12Ha), Vehicular access serving the proposed development is from a single entrance off the existing Tully Park View and utilises the existing/permitted roads including the Level 5 road (Tully Road (0.09Ha) - permitted and now under construction under Reg. Ref. DZ20A/0522) linking Gun and Drum Hill Road and Tully Park View. The development proposal will also utilise the extension of Castle Street westwards to the Tick nick Stream, together with a temporary nus turn back facility and a temporary attenuation pond and discharge to the Ticknick Stream all in Development Area 3 - Priorsland and its associated drainage connections in the T2 tile; each already permitted under construction under Reg. Ref. DZ20A/0399. This already permitted and under construction infrastructure amounts to approximately 1.18Ha. The application also provides for the use of existing roads at Gun and Drum Hill Road, Tully Park View, Grand Parade, Castle Street and Bishop's Street (all permitted and under construction under Reg. ref. DZ15A/0758) and a permitted road under construction at Cherrywood Avenue (reg. Ref. DZ17A/0862) which are required to be used to accommodate construction and occupation access to residential development from Valley Drive and the Wyattville Link Road. These already permitted roads amount to approximately 5.6 Ha. The total area of</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

Planning Reference	Address	Application Status	Decision date	Summary of development	Rationale
DZ21A/0932	Site in the Townlands of Laughanstown and Cherrywood, Dublin 18	Permission Granted	07 April 2022	<p>the planning application site amounts to approximately 8.95 Ha.</p> <p>This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended. The site of the residential development is located in the Cherrywood Planning Scheme Area and forms part of Development Area 2 - Cherrywood. The site of the residential development of this application is approximately 2.73 Ha and is generally bounded by Grand Parade to the west, currently undeveloped residentially zoned lands within Development Area 2 - Cherrywood to the north, Valley Drive to the east and Bishop's Street to the south. The proposed development consists of 146 no. apartments, all with private balconies/terraces (total gross floor area (GFA) of 11,999 m<sup>2</sup>) accompanied in 4 no. blocks of 3-4 storeys in height over single level basement, consisting of the following: Block A (2,751 m<sup>2</sup>); 36 no. apartments comprising 20 no. 1 bedroom apartments and 16 no. 2 bedroom apartments; Block B (3,920 m<sup>2</sup>); 41 no. apartments, comprising, 10 no. studio apartments, 8 no. 1 bedroom apartments and 23 no. 2 bedroom apartments; Block C (2,955 m<sup>2</sup>): 33 no. apartments comprising 9 no. 1 bedroom apartments and 24 no. 2 bedroom apartments; Block D (2,688 m<sup>2</sup>); 36 no. apartments comprising 20 no. 1 bedroom apartments and 16 no. 2 bedroom apartments; The provision of a podium courtyard (c 3,170 sq m) of which c. 2,370 sq m is private communal amenity space. The provision of c. 3,450 sq m of public open space, including a pocket garden (c. 210 sq m). All ancillary and associated site development works, including the provision of ESB substation/switch room, bike stores, bin stores and bicycle parking areas. The provision of a total of 212 no. car parking spaces of which 151 no. are to serve the residential development proposed, all located at basement level and 2 no. car sharing spaces located at surface level on proposed access road. 61 no. of the proposed car parking spaces in the basement to be reserved for future development subject of a separate application. Vehicular access to be provided via an internal street to be shared with the remainder of the residential plot in separate ownership (subject to a future application). Vehicular access to the internal street is provided from Grand Parade via Bishop Street (both permitted under Reg Ref. DZ21A/0758) which in turn link to Tully Vale Road. The internal street also provides pedestrian/cycle access only to Tully Vale Road. The Transport Interchange located on Grand Parade at the south-western end of the site has been provided as per Reg Ref. DZ17A/0862 and is not affected by the current application</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site
DZ21A/0785	c.0.95 ha townland, Cherrywood, Dublin 18 (also Co. Dublin)	Permission Granted	30 March 2022	<p>Permission for a mixed use development on lands. The development will consist of the following: Provision of an office building (High Intensity Employment) of 13,487 sq.m. up to 8 no. storeys in height to the south east corner of the TC3 quadrant (Block TC3-1) including non-retail (incl. café /restaurant) uses comprising 1,221 sq.m at ground/street level. provision of public open space including plaza areas, works to Cherrywood Avenue, footpaths, parking, loading bays, landscaping works and boundary treatments. Provision of one vehicular access point to basement level (below podium) from Cherrywood Avenue South. Parking at basement level (below podium) for 151 no. commercial car parking spaces. 146 no. bicycle spaces are proposed at basement and ground/street level (podium level). The proposed development includes SUDs drainage, the provision of green roofs throughout and all associated site development works and services and plant. This application relates to development in the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014 (as amended).</p>	AA Screening concludes that the project will not have likely significant effects on any Natura 2000 site

## 6 Impact Assessment

### 6.1 Introduction

The impacts on the valued ecological features are assessed here. The initial assessment considers the potential impact pathways and whether these apply to the ecological features. The impact assessment considers the project and the anticipated effects in the absence of any mitigation.

The potential impacts from the maintenance works and the site's operation following the works are assessed under the following:

- Impacts through the generation of pollutants (dust, noise, spills etc) during the works
- Disturbance to habitats and species
- Habitat loss (foraging, commuting, general refuge and nesting)

The following sections describes the nature of immediate / short-term impacts, as well as any medium- or long-term impacts, predicted for designated protected sites, habitats and species in the absence of implemented mitigation measures during the maintenance works.

### 6.2 Do Nothing Scenario

If the proposed works were not to go ahead and the present land management continues as is, the ecological value of the site would remain.

### 6.3 Construction Phase

#### 6.3.1 Habitats

##### (Mixed) Broadleaved woodland and Treelines

The woodland habitat, while present beyond the site boundary, is in close proximity to the site boundary and are vulnerable to surface water (run-off) polluting events. (e.g., leaking or spilled hydrocarbons) which may occur within the site. While the works will not be located near the woodland or treelines and there will be no stockpiling of material near these trees, there may be accidental damage to tree limbs or root compaction through the movement and storage of equipment. These impacts would have a knock-on effect on the protected faunal groups which frequent this habitat for commuting, foraging or refuge purposes.

Due to the habitats' distance from the site, they are not anticipated to be physically disturbed or degraded, i.e., damaging of limbs or physical root compaction from machinery during the construction phase of the development.

Therefore, in the absence of mitigation, during the construction phase, **a slight, temporary negative impact** is anticipated for mixed woodland habitat and treeline.

##### Dry meadows and grassy verges

The meadow habitat, while present beyond the site boundary, is in close proximity to the site boundary and are vulnerable to surface water (run-off) polluting events. (e.g., leaking or spilled hydrocarbons) which may occur within the site. While the works are not scheduled to occur within the meadow grasslands, there may be accidental damage to this habitat through compaction and disruption through the movement and storage of equipment. These impacts would have a knock-on effect on the protected faunal groups which frequent this habitat for commuting, foraging or refuge purposes.

Therefore, in the absence of mitigation, during the construction phase, **a slight, temporary negative impact** is anticipated for this grassland habitat.

### 6.3.2 Species

#### Mammals - Badger

While no sign of Badger habitation was present on site, this does not ensure that this species doesn't occasionally visit the site for foraging and commuting. Bearing this in mind, minor impacts may arise in the form of disturbance to foraging and commuting activities, as well as potential loss of life to individuals in the case of the accidents within the construction site (e.g. accidental trappings), after failure to exclude entry.

Therefore, in the absence of mitigation, during the construction phase, **a slight, temporary negative impact** is anticipated for Badger.

#### Mammals - Red Squirrel, Hedgehog, Pygmy Shrew

While no signs of Red Squirrel, Hedgehog or Pygmy Shrew habitation were present during the ecological walkover, this does not ensure that the local mammal species do not occasionally visit the site area for foraging. Bearing this in mind, minor impacts may arise in the form of disturbance to foraging and commuting activities, as well as potential loss of life to individuals in the case of the accidents within the construction site (e.g. accidental trappings), after failure to exclude entry.

Therefore, in the absence of mitigation, during the construction phase, **a slight, temporary negative impact** is anticipated for these mammal species.

#### Bats

The proposed development is not likely to have an adverse impact on population numbers of the bat species using the site, as there will be no reduction in potential roosting locations due to the proposed development. The site has been valued as having low-to-moderate foraging and commuting suitability within the site for bats. Potential impacts on individuals using the site could be posed by damage to surrounding habitats and use of lighting during the construction phase. Therefore, in the absence of mitigation, during the construction phase, **temporary negative impact of slight significance** is anticipated for bat species.

#### Breeding Birds

Local breeding will potentially be physically disturbed from their foraging activities during the construction works. While there are many bird species in the general area of conservation concern, the extent of the works on the site are small, contained and temporary, there are many alternate grass pitches in the vicinity of the site that will provide the birds ample opportunity for foraging. Therefore **adverse, low-level, temporary impact on a locally important ecological feature will have an overall negligible impact on foraging breeding birds.**

Though, in the absence of mitigation, the disruption to trees containing nests during breeding season would increase the impact, elevating the overall impact to a **temporary negative impact of slight significance**. Therefore, mitigation will be provided to avoid this scenario.

#### Wintering Birds

Any wintering birds which are qualifying interests (QI) of Natura 2000 sites within the Zol have been assessed under the precautionary principal within the AA Screening associated with this project, and have been screened out for any significant effects from the development, as the construction of lighting will take place outside of the wintering bird season.

Similarly, non-QI wintering birds are also not anticipated to be impacted by the construction phase of the development, as the works will be taking place during the summer months, when wintering birds will not be foraging within the area. Therefore, there is **no impact** anticipated on any wintering birds during the construction phase.

#### Invertebrates

Local invertebrate species will potentially be disturbed from their foraging activities during the construction works through the damage and disruption of the local meadow grasslands, which will have a knock-on effect on the reduced resources available for invertebrate species.



Therefore, in the absence of mitigation, during the construction phase, **temporary non-significant negative impact** is anticipated for local invertebrate species

## 6.4 Operational Phase

### (Mixed) Broadleaved woodland, Dry meadows and grassy verges, Treelines, Mammals and Breeding Birds

Given the nature and extent of the project's operations, adverse impacts are not anticipated for these habitats and species groups, therefore, the operational phase of the development will have a **neutral impact on these ecological features**.

#### Bats

While there is existing lighting within the locality of the site, the addition of additional flood lighting will increase the overall impact on foraging and commuting bats. Therefore, in the absence of mitigation, a **slight, short-term negative impact is anticipated for local bats** given the overall reduction in foraging and commuting suitability.

#### Wintering Birds

Disturbance-based effects, in terms of the use of the floodlights during daily use of the pitches, are not anticipated to significantly disrupt the foraging activity of wintering bird species, and they are not anticipated to effect the status of any species that may venture within the boundary of the project site. Species such as Brent Geese tend to feed during the day, returning to their roost in the evening, and as such, their feeding habits will not be disrupted by the presence of the lights at night.

Due to the absence of wintering birds during the evening, the times when the lights will be active, operational impacts from the development on these species are also not anticipated.

## 6.5 Invasive Non-native Species

There were no invasive non-native High or Medium Impact species currently under the Third Schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011 species were recorded on-site during the ecological walkover, and neither the construction nor operational phase of the project are anticipated to contribute to the spreading of invasive species.

## 6.6 In-combination Impacts

None of the potential in-combination projects requiring planning (Section 5-2) will result in any impacts on the any of the valued ecological features.

## 6.7 Summary

The following potential significant impacts have been identified and mitigation is discussed in the next chapter:

- Impacts through the generation of pollutants (dust, noise, spills etc) during the works
- Impacts through the physical damage of local habitats
- Disturbance of commuting and foraging terrestrial mammals and bats, as well as potentially accidental fatal entrapment for terrestrial mammals.
- Disturbance of commuting, foraging, and nesting for local breeding birds of conservation concern.

The mitigation is based on that proposed in existing guidance documentation and where necessary additional mitigation is proposed to reduce the impacts identified above.

## 7 Mitigation

The following mitigation is recommended to ensure that the proposed development do not adversely impact on the ecological receptors outlined in Section 5.

Mitigation measures for anticipated impacts on designated sites and ecological features are outlined below.

### 7.1 Mitigation for Project Construction Phase

The activities of the project for the construction phase shall remain within the boundary of the proposed site. Within this area, the mitigation measures outlined below shall be implemented within the contractor's operation plan.

- CIRIA Guidance C741: *Environmental good practice on site guide* (Charles & Edwards, 2015; CIRIA, 2019 - [www.ciria.org](http://www.ciria.org));
- CIRIA Guidance C750D: *Groundwater control: design and practice* (Preene *et al.*, 2016; CIRIA, 2019 - [www.ciria.org](http://www.ciria.org))

#### 7.1.1 Site Compound

- It is preferred that the works compound be located in the amenity grassland in the north-east of the site, that it is not in close proximity to treelines, individual trees, or the meadow of higher value.
- Only plant and materials necessary for the construction of the works will be permitted to be stored at the compound location.
- Site establishment by the Contractor will include the following:
  - Site offices;
  - Site facilities (such as canteen, toilets, drying rooms, etc.);
  - Secure compound for the storage of all on-site machinery and materials;
  - Temporary car parking facilities;
  - Temporary fencing;
- Site Security to restrict unauthorized entry;
- Bunded storage of fuels and refuelling area. Bunds shall be 110% capacity of the largest vessel contained within the bunded area.
- A separate container will be located in the Contractors compound to store absorbents used to contain spillages of hazardous materials. The container will be clearly labelled, and the contents of the container will be disposed of by a licenced waste contractor at a licenced site. Records will be maintained of material taken off site for disposal.
- A maintenance programme for the bunded areas will be managed by the site environmental manager. The removal of rainwater from the bunded areas will be their responsibility. Records will be maintained of materials taken off site for disposal.
- The site environmental manger will be responsible for maintaining all training records.
- Drainage collection system for washing area to prevent run-off into surface water system.
- Wherever reasonably practical, refuelling of vehicles will be carried out off site to reduce risk of accidental hydrocarbon pollution events.

#### 7.1.2 Pollution Control and Spill Prevention

A minimum stock of spill kits will be maintained at all times and site foremen's vehicles will carry large spill kits at all times. Absorbent material will be used with pumps and generators at all times and used material disposed of in accordance with the Waste Management Plan.

Regular inspections and maintenance of plant and machinery checking for leaks, damage or vandalism will be made on all plant and equipment.

In the event of a spill the Contractor will ensure that the following procedure are in place:

- Emergency response awareness training for all Project personnel on-site works.
- Appropriate and sufficient spill control materials will be installed at strategic locations within the site.
- All potentially polluting substances such as oils and chemicals used during construction will be stored in containers clearly labelled and stored with suitable precautionary measures such as bunding within the site compound.
- Oil soakage pads should be maintained on-site to enable a rapid and effective response to any accidental spillage or discharge. These shall be disposed of correctly and records will be maintained by the environmental manager of the used booms and pads taken off site for disposal.
- Damaged or leaking containers will be removed from use and replaced immediately.

### 7.1.3 General Avoidance Measures

Although it has been identified that there will be no permanent impact through disturbance to wildlife during the work, it is advised that general avoidance measures be undertaken to protect wildlife while the works are being carried out.

General avoidance measures that should be incorporated by the contractors working on site include:

- No stockpiling of excavated or imported soil next to trees or the local meadow;
- Limit the hours of working to daylight hours, to limit disturbance to nocturnal and crepuscular animals;
- Due to the potential presence of, Badger, Hedgehog, Pygmy Shrew and bats, the use of lighting at night should be avoided during construction. If the use of lighting is essential, then a directional cowl should be fitted to all lights to prevent light spill and to be directed away from all treelines / wooded areas.
- Contractors must ensure that no harm comes to wildlife by maintaining the site efficiently and clearing away materials which are not in use, such as wire or bags in which animals can become entangled; and
- Any pipes should be capped when not in use (especially at night) to prevent local fauna becoming trapped. Any deep excavations should be covered overnight to prevent animals from falling and getting trapped. If that is not possible, a strategically placed plank should be placed to allow animals to escape.

### 7.1.4 Root compaction and limb damage avoidance

In order to avoid the damage and compaction of roots and vegetation:

- Machinery will avoid areas in rooting zones or by areas occupied by the woods or standalone trees.
- An appropriate buffer zone around trees and vulnerable vegetation will be implemented using Heras fencing in order to reduce the risk of accidental root or limb damage.
- In order to mitigate for dry, windy days, exposed soil will be dampened down during periods of dry weather in order to minimise the generation of dust that would damage local vegetation.

### 7.1.5 Tree replacement

Any trees that are removed or damaged will be replaced after the works with native plant species, such as Ash and Field Maple that currently exist in treelines along the park boundary. Any replacement trees will help enhance floral diversity within the site and improve the area for terrestrial invertebrates, mammals, bats and birds.

### 7.1.6 Meadow Grassland Protection

In order to prevent the deterioration of the meadow grassland, the storage of materials and equipment should be limited to the amenity grassland and transitional grassland areas that remain adjacent to the

athletics track. In order to facilitate this, protective measures such as security fencing should be present along the meadow grassland.

## 7.2 Operational Mitigation

### 7.2.1 Lighting Column Orientation

While there is existing lighting along the footpaths surrounding the site, these lighting columns are cowled downwards and located in a way that would prevent the lighting from spilling above and beyond the local treeline. This cowling ensures that foraging and commuting features are largely uninhibited from existing lighting. The proposed lighting poles have been designed to have their lights directed specifically towards the athletics track and the interior amenity grass pitch in order to limit the light spillage to a lux level of below 5 lux into the habitats of higher quality. The lighting diagram for this adjusted light spillage is shown both in Figure 7-1, Figure 7-2, and Figure A2 and A3 in Appendix A. While there does remain a small pocket in the south-east of the site (seen as the upper right corner of the pitch in Figure 7-1, given its orientation) where the lux borders 5-7 lux, this area was recorded to already exhibit an intense lux level of 11 lux from the existing street light, and the overspill from this project is not anticipated to impact local bat populations. This restructuring of the lighting columns and the previous scheduling of the light activity during summer months will reduce any impact that the project may have had on local bats.

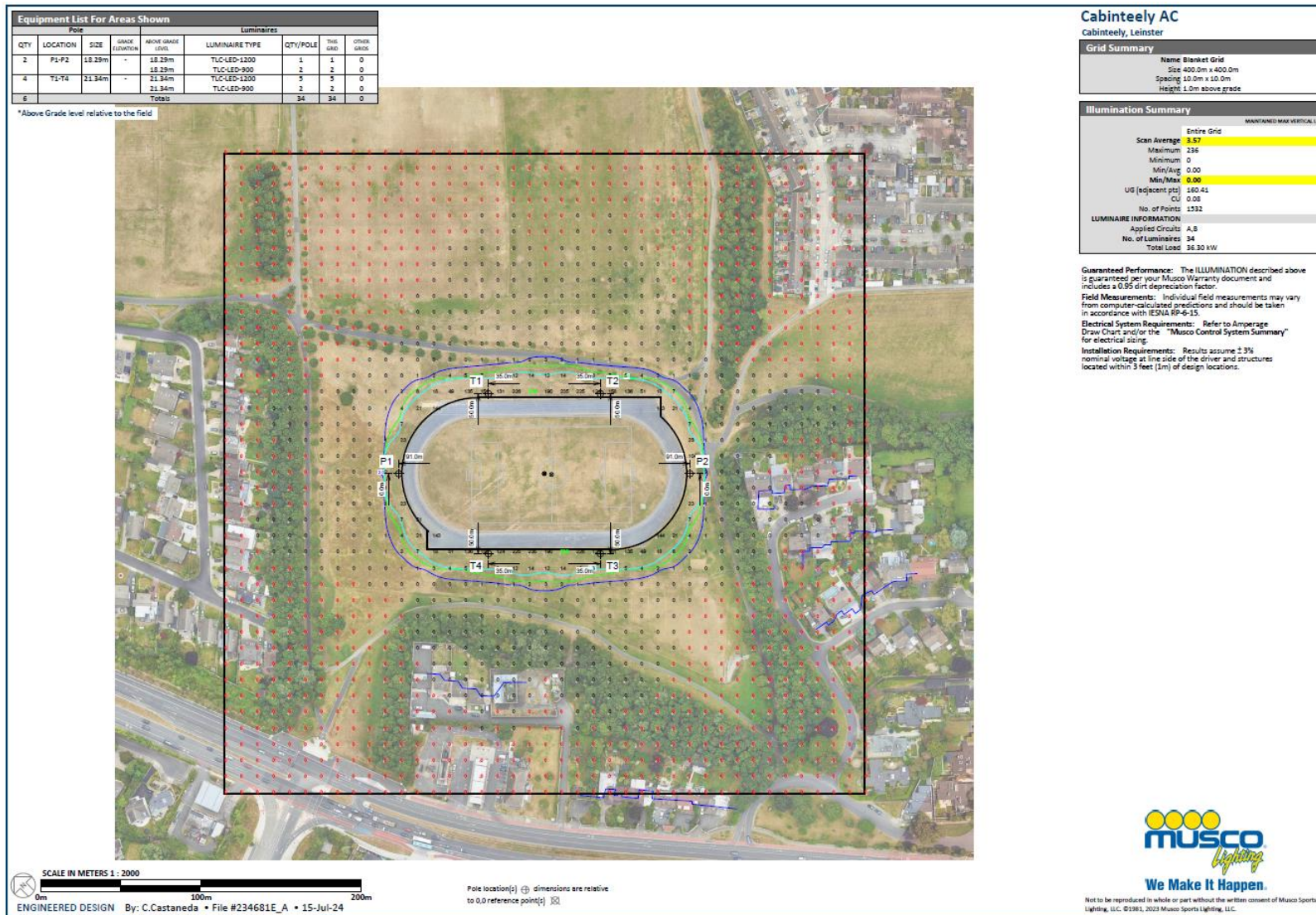


Figure 7-1: Lighting overspill diagram of the project's lighting. (Note the orientation of the diagram displayed in the lower left corner of the image)

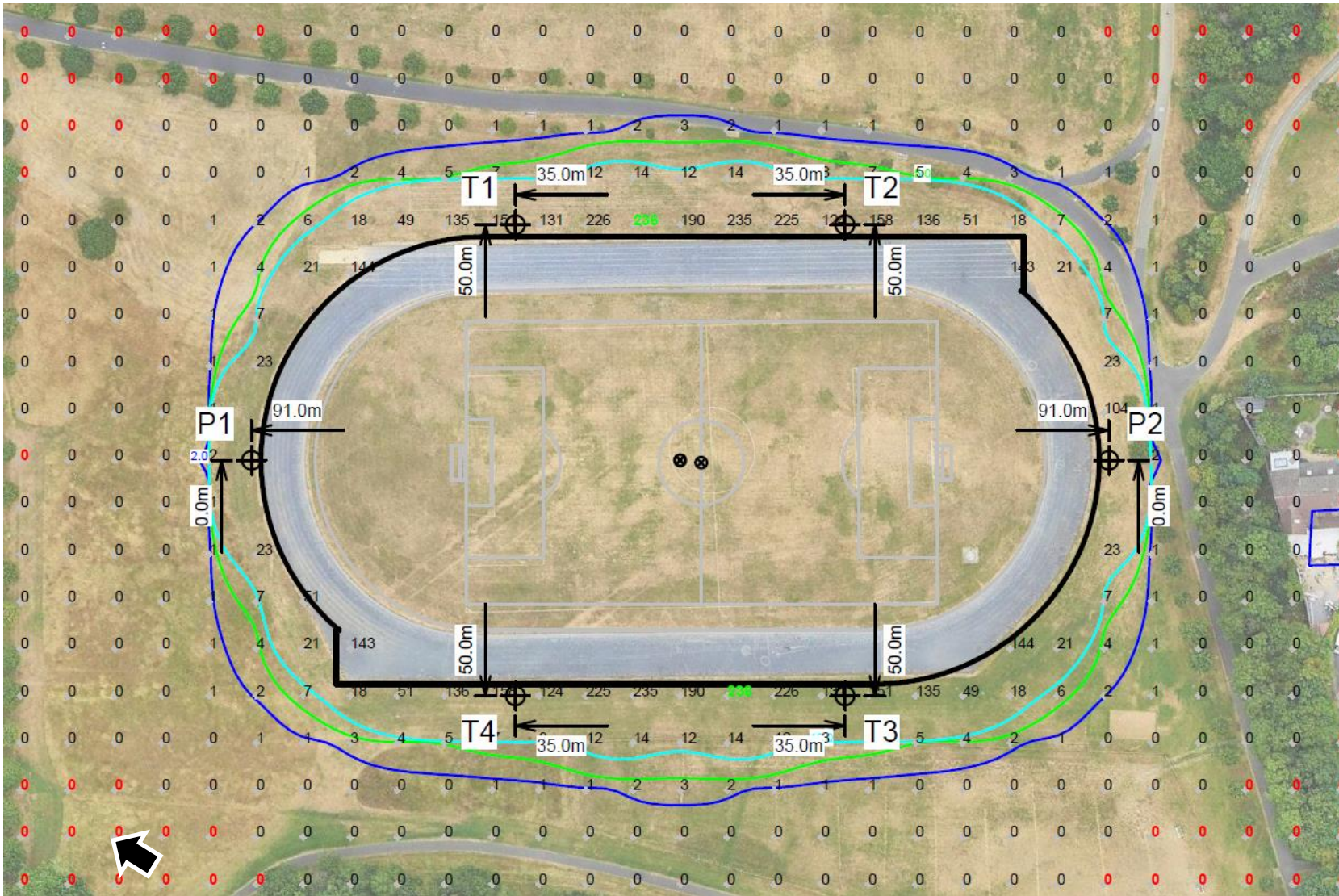


Figure 7-2: A cropping of the lighting overspill diagram (with lux levels) of the project's lighting, focused on the athletics track and the immediate surrounds. The blue, green and light blue indicate low, medium and higher light intensities (Note the orientation of the diagram displayed in the lower left corner of the image)

### 7.2.2 Scheduling of the floodlights

While the mitigation measures of the orientation of the lights has already been assessed as reducing any impacts during the operational phase, additional mitigation includes that the floodlights are operated on a scheduled basis during the seasons of bat activity (April - September).

The floodlighting will be operational from 06:00-08:00 and 17:00 until 22:00, Monday to Sunday. In addition, significant seasonal restrictions will be deployed as outlined below to minimize any impacts on bats, including no floodlighting allowed in April, May, August and September. It is recommended that site will follow a lighting schedule as outlined Table 7-1 below. This scheduled limitation of the lighting during summer will further contribute to maintaining a dark environment of the running track.

A light test will be undertaken post construction, and a bat specialist will provide a report to confirm compliance. There will be on-going monitoring of any impacts on bats and other species and lighting times may change as required.

Table 7-1: Scheduled lighting times of the on-site floodlights, highlighting sensitive periods for bats

Month	Lighting Schedules
January	06:00-08:00 and 17:00 until 22:00
February	06:00-08:00 and 17:00 until 22:00
March	06:00-08:00 and 17:00 until 22:00
April	No floodlighting allowed
May	No floodlighting allowed
June	06:00-08:00 and 17:00 until 22:00
July	06:00-08:00 and 17:00 until 22:00
August	No floodlighting allowed
September	No floodlighting allowed
October	06:00-08:00 and 17:00 until 22:00
November	06:00-08:00 and 17:00 until 22:00
December	06:00-08:00 and 17:00 until 22:00

## 7.3 Additional Biodiversity Recommendations for the Operational Phase

### 7.3.1 Installation of Bat Boxes

As an additional opportunity to enhance the site for bats, it is recommended that bat boxes be installed in dark areas around the park.

Example of suitable bat boxes include the 1FF Schwegler Bat Box with Built-in Wooden Rear Panel and the 2F Schwegler Bat Box (General Purpose).

Guidance on installing bat boxes can be found here: <https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes/putting-up-your-box>

Simple bat boxes suitable for Pipistrelle's and Leisler's bats can be bought online or constructed by local community groups e.g. Men's Sheds. Note that some bat box designs (that are enclosed at the base) require annual cleaning out, which must be carried out by a Bat Specialist or NPWS Ranger.

Guidance on installing bat boxes is detailed in the following resource document:

[http://www.batcon.org/images/InstallingYourBatHouse\\_Building.pdf](http://www.batcon.org/images/InstallingYourBatHouse_Building.pdf)

A summary on installing bat boxes can be summarised as:

- Suggested locations include areas with mature trees within treelines.
- All bat boxes should be mounted at least 3-4 metres above the ground.

- Mount on the south facing side of the tree where the box exposed to the sun for part of the day.
- Do not install bat boxes on a tree that is near any lighting column.

These suggestions are generalised for the improvement of a site to become more bat friendly. As such, it is recommended that if there are intended to be bat enhancements on site, that a bat specialist provides more definitive advice on how and where to appropriately facilitate bat boxes

### 7.3.2 Bird boxes

It is recommended that bird nesting boxes be installed around the edges of the park on trees to enhance the site for nesting bird species.

Bird nesting boxes come in a range of entrance sizes that are suitable for different species dependant on their size. A selection of the following is recommended:

- 25mm hole for Blue Tit and smaller birds
- 32mm hole for Great Tit and slighting larger small birds
- Open-fronted nest box for Robin
- 45mm hole for Starling and larger birds.

### 7.3.3 All Ireland Pollinator Plan

It is recommended that actions from the All-Ireland Pollinator Plan be implemented through the operation and management of the pitches. Measures outlining pollinator-friendly management of Sports Clubs are detailed in this guidance document: Sports Clubs » All-Ireland Pollinator Plan ([pollinators.ie](http://pollinators.ie)). This document outlines ways to make sports clubs more biodiversity friendly where feasible, and that these will be in line with existing ecological function of a site. For the proposed site these can be summarised as:

- Manage some off-pitch grass for pollinators;
- Plant biodiversity-friendly trees, shrubs and flowers;
- Reduce use of herbicides;
- Provide nesting places for wild bees



## 8 Residual Impact

Residual ecological impacts are those that remain once the development proposals have been implemented. The main aim of ecological mitigation, compensation and enhancement is to minimise or eliminate residual impacts.

### 8.1 Construction Phase

Preparatory and construction works will result in disturbance to the foraging and commuting habitat for protected species such as ground-dwelling mammals, bats and birds.

Implementation of mitigation measures during the construction works phase, along with good site management and construction practices will help to minimise any significant and/or permanent impact on the environment. Included in this will be best practice measures to prevent disturbance, and accidental injury, as well as control of pollution, which will minimise any impact on local habitats and the species reliant on them.

With the proposed mitigation implemented the residual impact during the construction phase is assessed to be of temporary negative impact on account of the disturbance to habitats of high local ecological importance, as well as locally important protected species.

### 8.2 Operational Phase

The proposed lighting of pitches will have a minor risk of disrupting foraging and commuting activity of local bat species, and mitigation in the form of light cawling and orientation, along with seasonal variation in lighting time schedule will prevent the site from experiencing large scale light pollution and allow the site to continue experiencing light levels in line with existing conditions. Overall, the works will have a negligible residual impact on the biodiversity within and adjacent to the site.

## 9 Summary of Impact Assessment

### 9.1 EclA Table

Table 9-1 presents a summary of the impacts envisaged when mitigation approaches are included. Residual impacts are also described.

All other ecological impacts can be avoided, mitigated or compensated so there is no anticipated significant impact for the remaining species considered in the assessment.

Table 9-1: Summary of Impacts; Mitigations; Significance of Residual Impacts

Ecological Features	Impacts	Importance of Feature	Significance of impact without Mitigation	Mitigation	Significance of Residual Impacts
(Mixed) broadleaved woodland/Scattered trees and parkland Treeline	Accidental introduction of pollutants into the habitat, degrading its condition and its ability to support the species associated with the habitat. Root compaction or accidental limb damage through site access	High Local	Slight, temporary, negative impacts	<p>Strict adherence to</p> <ul style="list-style-type: none"> <li>- The mitigations outlined in Sub-sections 7.1.1, 7.1.2, 7.1.3, 7.1.4 and 7.1.5 ensuring the protection of local habitats which are used by local fauna.</li> <li>- The mitigations outlined in Sub-sections 7.1.1 and 7.1.4 in relation to the location of the site compound and the prevention of damage to nearby limbs and roots of trees.</li> <li>-The mitigation listed in Sub-section 7.1.5 in relation to the replacement of trees and shrubs lost from the park.</li> </ul>	Neutral residual impact during the operational phase.
Dry meadows and grassy verges	Accidental introduction of pollutants into the habitat, degrading its condition and its ability to support the species associated with the habitat. Soil compaction through site access	Regional	Moderate, temporary negative impacts	<p>Strict adherence to</p> <ul style="list-style-type: none"> <li>- The mitigations outlined in Sub-sections 7.1.1, 7.1.2, 7.1.3, 7.1.4 and 7.1.5 ensuring the protection of local habitats which are used by local fauna.</li> <li>- The mitigations outlined in sub-section 7.1.6 in relation to the protective measures around the meadow habitats' boundary</li> </ul>	Neutral residual impact during the operational phase.
Mammals	Disturbance of foraging and commuting activities during construction phase. Accidental entrapments causing injury or fatality.	High Local	Slight, temporary, negative impact	<p>Strict adherence to</p> <ul style="list-style-type: none"> <li>- The mitigations outlined in Sub-sections 7.1.1, 7.1.2, 7.1.3 and 7.1.4 ensuring the protection of local habitats which are used by local fauna.</li> <li>-The mitigations outlined in Sub-sections 7.1.3 relating to the</li> </ul>	Neutral residual impact during the operational phase.

Ecological Features	Impacts	Importance of Feature	Significance of impact without Mitigation	Mitigation	Significance of Residual Impacts
				prevention of disturbance and/or accidental entrapment of local mammals.	
Bats	Disturbance of foraging and commuting activities through development if additional lighting used at night during construction and operation.	High Local	Slight, temporary, negative impact	<p>Strict adherence to:</p> <ul style="list-style-type: none"> <li>-The mitigations outlined in Sub-section 7.1.3 regarding the general avoidance measures regarding lighting impact safeguards for potential local bat species.</li> <li>- The mitigations outlined in Sub-section 7.2.1 regarding the cowling and directional orientation of the flood lights that will negate any light spillage that would disrupt bat activities during operation</li> <li>- The mitigations outlined in Sub-section 7.2.12 regarding the scheduling of flood lights that further negate any disruption of the flood lights during operation</li> </ul>	Neutral residual impact during the operational phase.
Breeding birds	<p>Disturbance of foraging and commuting activities through damage to the, treelines, scrub and adjacent amenity grassland habitats.</p> <p>Disturbance of nesting through disruption of the treeline habitats.</p>	High Local	Slight, temporary, negative impact	<p>Strict adherence to:</p> <ul style="list-style-type: none"> <li>- The mitigations outlined in Sub-sections 7.1.1, and 7.1.4 ensuring the protection of habitats which are used by local fauna.</li> <li>-The mitigation listed in Sub section 7.1.5 in relation to the replacement of any loss of or damaged trees.</li> </ul>	Neutral residual impact during the operational phase.
Wintering Birds	No impacts anticipated during construction or operational phase	International	No impacts anticipated	n/a	Neutral residual impact during the operational phase.

Ecological Features	Impacts	Importance of Feature	Significance of impact without Mitigation	Mitigation	Significance of Residual Impacts
Invertebrates	Disturbance of foraging and commuting activities during construction phase.	Low Local	Non-significant, temporary negative impacts	Strict adherence to  - The mitigations outlined in Sub-sections 7.1.1, 7.1.2, 7.1.3 and 7.1.4 ensuring the protection of local habitats which are used by local fauna.	Neutral residual impact during the operational phase.

## 9.2 Cumulative Impacts

As there are no significant residual impacts on ecological features (following mitigation measures) from this development, there is therefore no potential for other plans or projects identified in Section 5 to act in combination with it. Therefore, **significant cumulative impacts are not expected to occur on the ecological features within the proposed site.**

## 10 Conclusion

The proposed development project has been shown to potentially impact a number of different habitats with high local importance (woodland, treelines and meadow) and faunal groups (ground-dwelling mammals; bats; breeding birds and wintering birds), whose ecological importance is of high local level in the context of this proposed site.

Based upon the information supplied, regarding the scope of the work site layout, and lighting plans; and provided that the development is constructed in accordance with the mitigation measures outlined above, there will be no significant impacts alone or in-combination with other projects and plans, as result of the development and associated works on the ecology and local species of the area and on any designated conservation sites.

Given the scale of this development, the local ecology, including mammals, bats and birds, will continue to benefit from the maintained ecological function of the site.

## A Site Layout Plan and Site Overspill Diagram

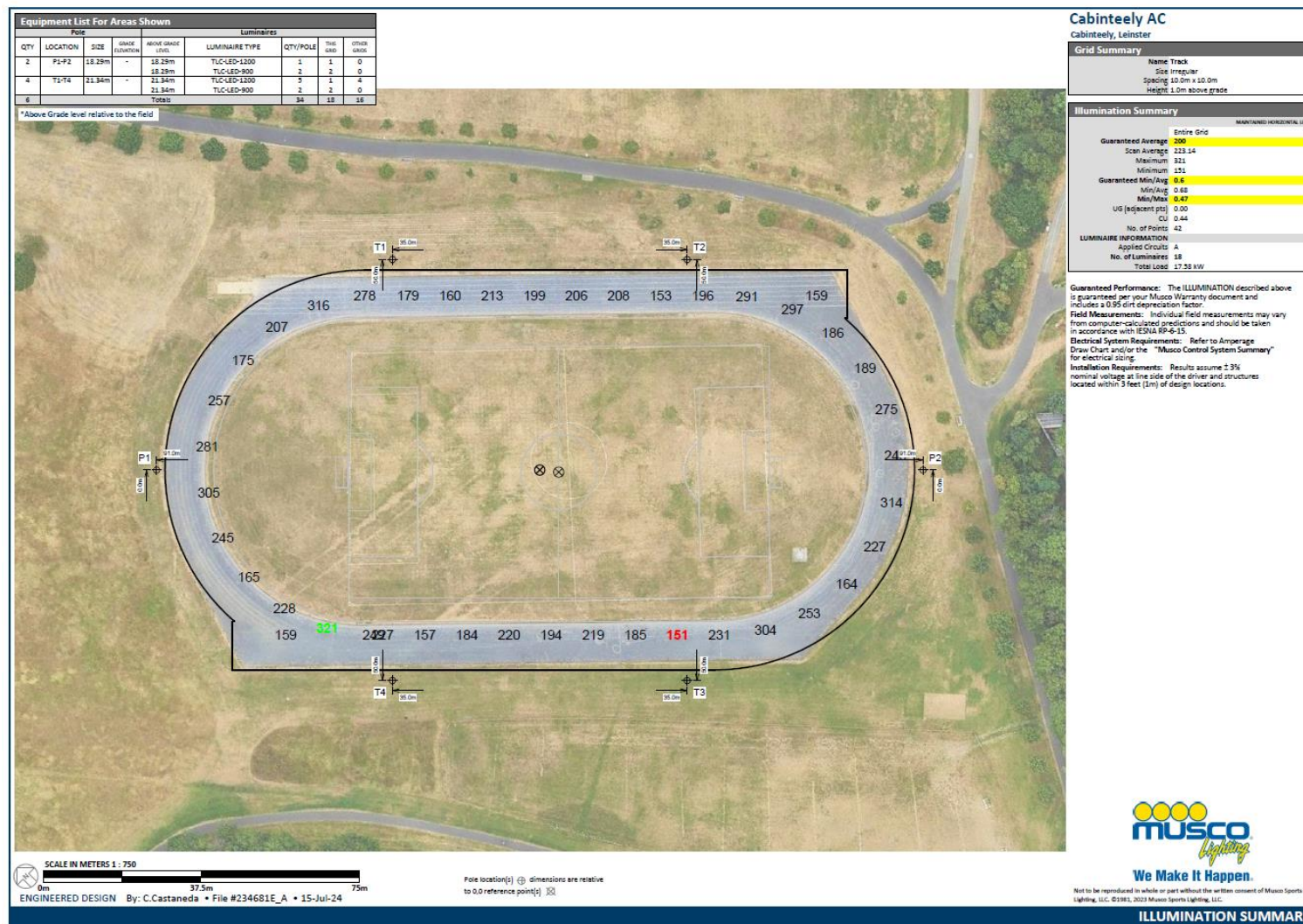


Figure A-1: The positioning of the proposed floodlights around the athletics pitch



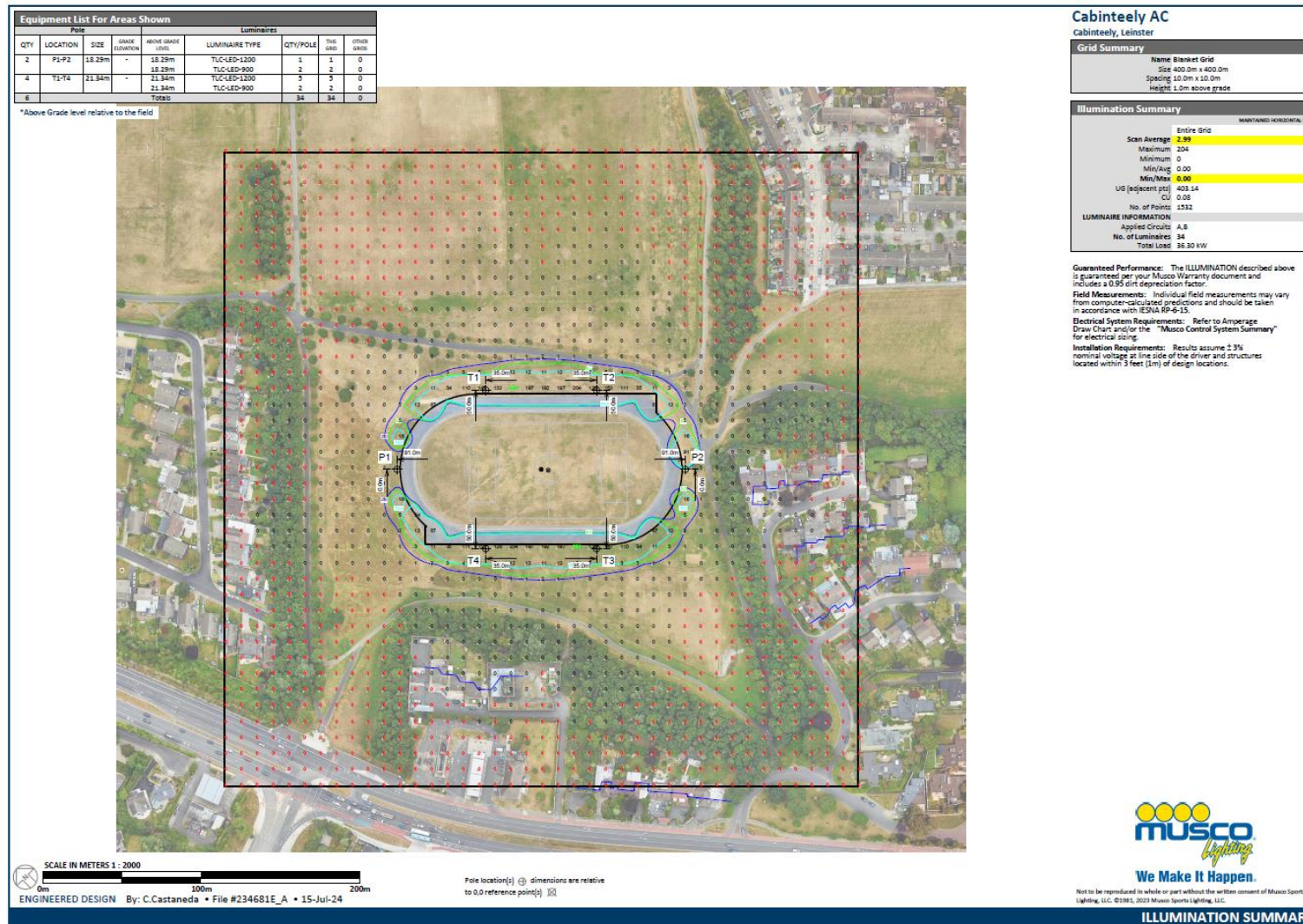


Figure A-2: The horizontal lux levels of the proposed floodlights

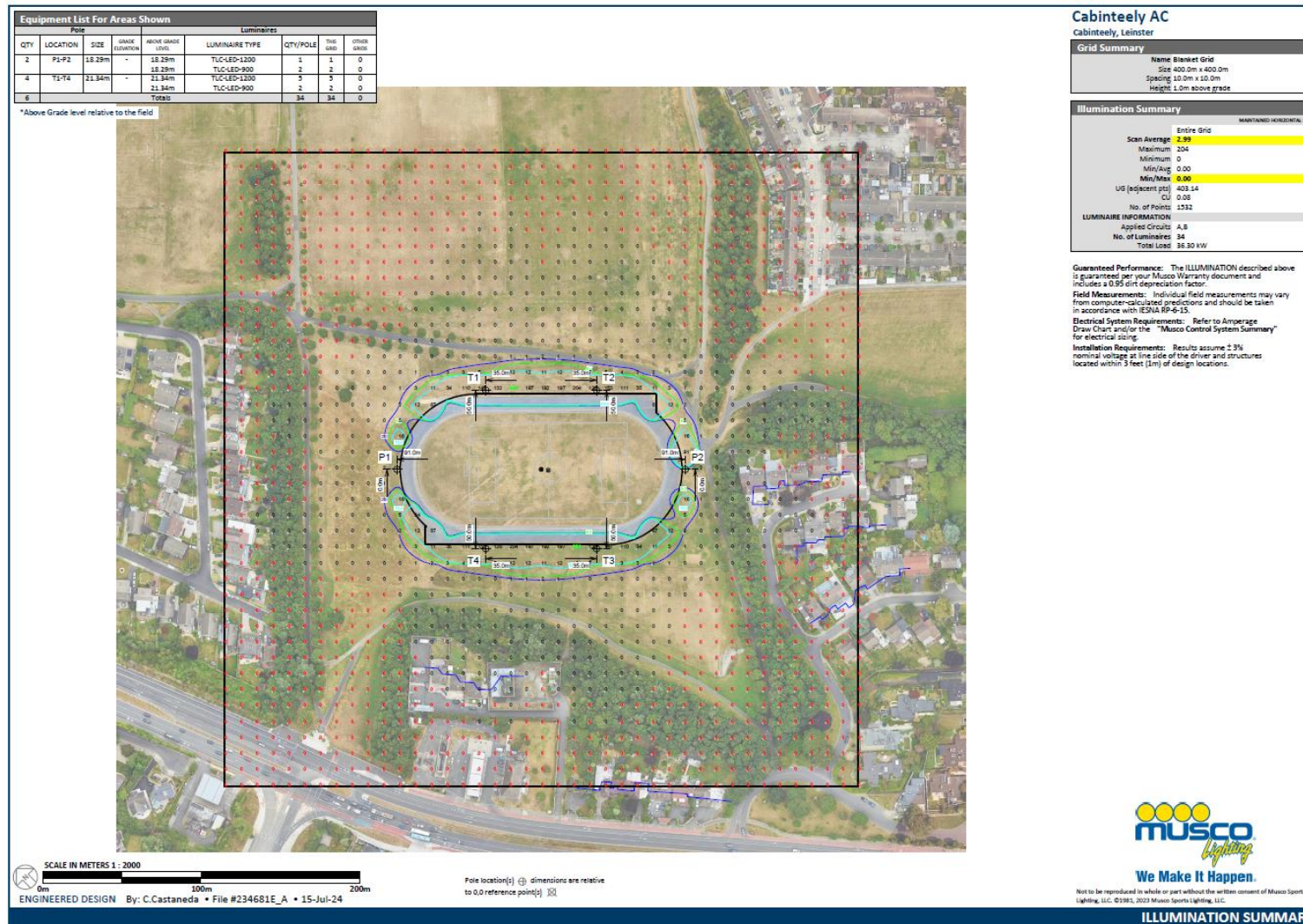


Figure A-3: The vertical lux levels of the proposed floodlights

## B Relevant Policy and Legislation

The legislation discussed below is intended as a guide only and does not replace formal legal advice.

### B.1 Biodiversity Policy Guidance

'Biodiversity: The National Biodiversity Action Plan 2017-2021 (DCHG, 2017) sets out actions through which a range of government, civil and private sectors will undertake to achieve Ireland's 'Vision for Biodiversity' and has been developed in response to The Earth Summit, held in Rio de Janeiro in 1992 (UN Convention on Biological Diversity) and subsequent EU and International Biodiversity strategies and policies.

As part of the Action Plan process Local Authorities (LA) must produce Biodiversity Action Plans (BAP). BAPs highlight local biodiversity issues and set out a series of objectives and action plans for the conservation of priority species and habitats where they occur in each district or county.

### B.2 Designated Sites and Nature Conservation

#### B.2.1 Statutory Designated Nature Conservation Sites

Sites with statutory designations receive varying degrees of legal protection under Irish statute (i.e. Wildlife Act 1976 and Wildlife (Amendment) Act (2000) and European Directives (i.e. the EC Birds Directive (2009/147/EC) and EC Habitats Directive (92/43/EC)). The EU directives were transposed into Irish national law and subsequent amendments were revised and consolidated in the European Communities (Birds and Natural Habitats) Regulations 2011 and Irish Statutory Instrument 477/2011

There are a number of statutory designations used for sites of high nature conservation value in Ireland, which are applied depending upon the importance of the site in a local, regional, national or international context. These include:

- National
- Natural Heritage Area (NHA)
- Wildfowl Sanctuary
- Statutory Nature Reserve
- Refuge for Fauna
- European
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- International
- UNESCO Biosphere Reserve
- Ramsar Convention Site
- National Park (Category II) Sites

#### B.2.2 Non-Statutory Designations

Non-statutory sites are afforded no statutory legal protection, but are normally recognised by local planning authorities and statutory agencies as being of local nature conservation value

A proposed Natural Heritage Area (pNHA) is an area deemed to be of special interest containing important wildlife habitat and often containing rare or threatened species. They may also be selected on the basis of their geology or geomorphology.

#### B.2.3 Protected and Notable Species

A number of species are protected under Irish and international legislation. In Ireland, primary protection is provided under the 1976 Wildlife Act and Wildlife (Amendment) Acts (2000 & 2010) and revision

2018. Species of European importance receive additional protection in Ireland under the Birds and Natural habitats Regulations 2011.

The Flora (Protection) Order (2015) makes it illegal to cut, uproot or damage a listed species in any way. It is illegal to alter, damage or interfere in any way with their habitats.

## C National Biodiversity Data Centre (2024)

### C.1 Recent records (within 10 years) of protected species within the 5km of the site

Common Name	Date	Designation
<b>Amphibians</b>		
Common Frog <i>Rana temporaria</i>	08/07/2020	EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Smooth Newt <i>Lissotriton vulgaris</i>	27/09/2020	Protected Species: Wildlife Acts
<b>Birds</b>		
Barn Owl <i>Tyto alba</i>	10/05/2021	Birds of Conservation Concern - Red List
Barn Swallow <i>Hirundo rustica</i>	21/12/2020	Birds of Conservation Concern - Amber List
Black Guillemot <i>Cephus grylle</i>	02/07/2017	Birds of Conservation Concern - Amber List
Black-headed Gull <i>Larus ridibundus</i>	29/12/2022	Birds of Conservation Concern - Amber List
Black-legged Kittiwake <i>Rissa tridactyla</i>	19/01/2017	Birds of Conservation Concern - Amber List
Brent Goose <i>Branta bernicla</i>	27/12/2022	Birds of Conservation Concern - Amber List
Common Grasshopper Warbler <i>Locustella naevia</i> )	22/05/2016	Birds of Conservation Concern - Amber List
Common Greenshank <i>Tringa nebularia</i>	02/01/2017	Birds of Conservation Concern - Amber List
Common Guillemot <i>Uria aalge</i>	05/10/2017	Birds of Conservation Concern - Amber List
Common Kingfisher <i>Alcedo atthis</i>	04/09/2016	Birds of Conservation Concern - Amber List
Common Linnet <i>Carduelis cannabina</i>	11/07/2019	Birds of Conservation Concern - Amber List
Common Redshank <i>Tringa totanus</i>	22/12/2022	Birds of Conservation Concern - Red List
Common Scoter <i>Melanitta nigra</i>	19/01/2017	EU Birds Directive >> Annex II, Annex III Birds of Conservation Concern - Red List
Common Shelduck <i>Tadorna tadorna</i>	05/06/2016	Birds of Conservation Concern - Amber List
Common Snipe <i>Gallinago gallinago</i>	28/01/2017	EU Birds Directive >> Annex II, Annex III Birds of Conservation Concern - Amber List
Common Starling <i>Sturnus vulgaris</i>	29/12/2022	Birds of Conservation Concern - Amber List
Common Swift <i>Apus apus</i>	15/05/2022	Birds of Conservation Concern - Amber List
Common Tern <i>Sterna hirundo</i>	03/07/2019	Birds of Conservation Concern - Amber List
Common Wood Pigeon <i>Columba palumbus</i>	29/12/2022	EU Birds Directive >> Annex II, Annex III
Eurasian Curlew <i>Numenius arquata</i>	23/06/2021	EU Birds Directive >> Annex II Birds of Conservation Concern - Red List

Common Name	Date	Designation
Eurasian Oystercatcher <i>Haematopus ostralegus</i>	22/12/2022	Birds of Conservation Concern - Amber List
European Shag <i>Phalacrocorax aristotelis</i>	21/12/2022	Birds of Conservation Concern - Amber List
Great Black-backed Gull <i>Larus marinus</i>	14/12/2020	Birds of Conservation Concern - Amber List
Great Cormorant <i>Phalacrocorax carbo</i>	22/12/2022	Birds of Conservation Concern - Amber List
Great Crested Grebe <i>Podiceps cristatus</i>	09/01/2016	Birds of Conservation Concern - Amber List
Great Northern Diver <i>Gavia immer</i>	28/12/2015	EU Birds Directive >> Annex I Bird Species
Herring Gull <i>Larus argentatus</i>	29/12/2022	Birds of Conservation Concern - Red List
House Martin <i>Delichon urbicum</i>	02/08/2014	Birds of Conservation Concern - Amber List
House Sparrow <i>Passer domesticus</i>	28/11/2020	Birds of Conservation Concern - Amber List
Lesser Black-backed Gull <i>Larus fuscus</i>	22/12/2022	Birds of Conservation Concern - Amber List
Little Egret <i>Egretta garzetta</i>	19/12/2015	EU Birds Directive >> Annex I Bird Species
Little Grebe <i>Tachybaptus ruficollis</i>	26/12/2012	Birds of Conservation Concern - Amber List
Mallard <i>Anas platyrhynchos</i>	22/10/2016	EU Birds Directive >> Annex II, Annex III
Mediterranean Gull <i>Larus melanocephalus</i>	22/12/2022	EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Mew Gull <i>Larus canus</i>	29/12/2022	Birds of Conservation Concern - Amber List
Northern Gannet <i>Morus bassanus</i>	06/08/2020	Birds of Conservation Concern - Amber List
Peregrine Falcon <i>Falco peregrinus</i>	20/06/2019	EU Birds Directive >> Annex I Bird Species
Razorbill <i>Alca torda</i>	09/01/2016	Birds of Conservation Concern - Amber List
Red Kite <i>Milvus milvus</i>	20/06/2017	Birds of Conservation Concern - Amber List
Red-breasted Merganser <i>Mergus serrator</i>	09/01/2016	EU Birds Directive >> Annex II
Red-throated Diver <i>Gavia stellata</i>	14/02/2016	EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Ringed Plover <i>Charadrius hiaticula</i>	07/09/2019	Birds of Conservation Concern - Amber List
Rock Pigeon <i>Columba livia</i>	20/12/2020	EU Birds Directive >> Annex II
Sand Martin <i>Riparia riparia</i>	05/09/2020	Birds of Conservation Concern - Amber List
Sandwich Tern	05/10/2017	EU Birds Directive >> Annex I

Common Name	Date	Designation
<i>Sterna sandvicensis</i>		Birds of Conservation Concern - Amber List
Tufted Duck <i>Aythya fuligula</i>	22/10/2016	EU Birds Directive >> Annex II Annex III Birds of Conservation Concern - Amber List
Yellowhammer <i>Emberiza citrinella</i>	02/08/2021	Birds of Conservation Concern - Red List
<b>Invertebrates</b>		
Marsh Fritillary <i>Euphydryas aurinia</i>	29/03/2021	EU Habitats Directive >> Annex II
<b>Reptiles</b>		
Common Lizard <i>Zootoca vivipara</i>	22/08/2018	Protected Species: Wildlife Acts
<b>Mammals</b>		
Bottle-nosed Dolphin <i>Tursiops truncatus</i>	02/08/2020	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Common Dolphin <i>Delphinus delphis</i>	10/04/2019	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Common Porpoise <i>Phocoena phocoena</i>	08/07/2021	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts    Threatened Species: OSPAR Convention
Common Seal <i>Phoca vitulina</i>	25/07/2018	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Grey Seal <i>Halichoerus grypus</i>	13/08/2022	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Eurasian Badger <i>Meles meles</i>	18/08/2017	Protected Species: Wildlife Acts
Eurasian Pygmy Shrew <i>Sorex minutus</i>	21/10/2018	Protected Species: Wildlife Acts
Eurasian Red Squirrel <i>Sciurus vulgaris</i>	20/09/2022	Protected Species: Wildlife Acts
European Otter <i>Lutra lutra</i>	12/09/2018	Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Red Deer <i>Cervus elaphus</i>	16/07/2015	Protected Species: Wildlife Acts
West European Hedgehog <i>Erinaceus europaeus</i>	03/12/2022	Protected Species: Wildlife Acts

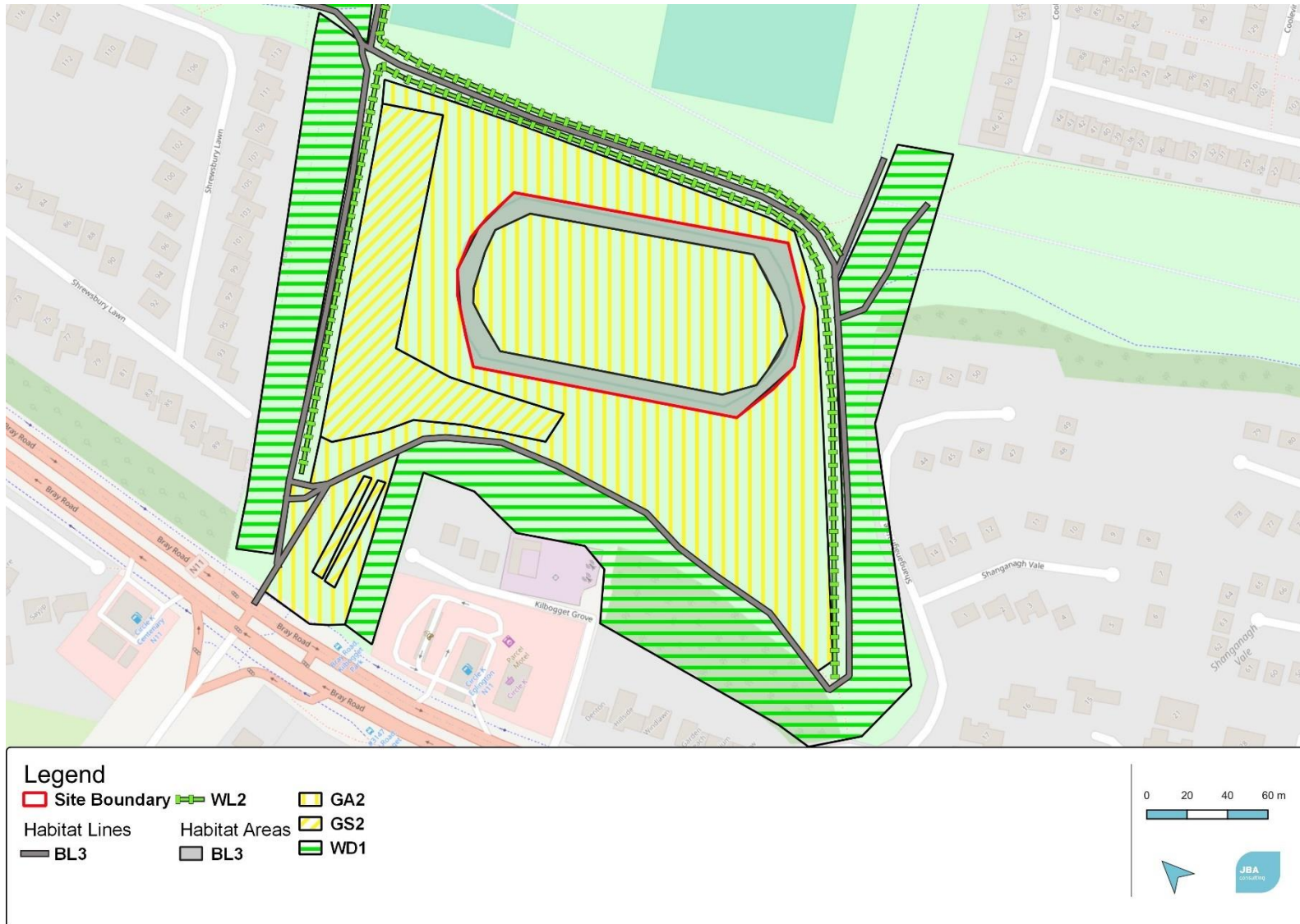
## C.2 Recent records (within 10 years) of invasive species within the 5km of the site

Common Name	Date	Designation
<b>Invertebrates</b>		
<i>Arcitalitrus dorrieni</i>	29/04/2017	Medium Impact Invasive Species
<i>Arthurdendylus triangulatus</i>	26/04/2020	High Impact Invasive Species
<i>Australoplana sanguinea</i>	06/03/2021	Medium Impact Invasive Species
Harlequin Ladybird <i>Harmonia axyridis</i>	31/05/2022	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Jenkins' Spire Snail <i>Potamopyrgus antipodarum</i>	19/06/2018	Medium Impact Invasive Species
<b>Plants</b>		
American Skunk-cabbage <i>Lysichiton americanus</i>	01/05/2021	Medium Impact Invasive Species EU Regulation No. 1143/2014 Regulation S.I. 477 (Ireland)
Butterfly-bush <i>Buddleja davidii</i>	21/03/2022	Medium Impact Invasive Species
Cherry Laurel <i>Prunus laurocerasus</i>	23/04/2022	High Impact Invasive Species
Common Broomrape <i>Orobanche minor</i>	25/06/2021	Medium Impact Invasive Species
Floating Pennywort <i>Hydrocotyle ranunculoides</i>	18/01/2018	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Giant Hogweed <i>Heracleum mantegazzianum</i>	18/07/2019	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Giant-rhubarb <i>Gunnera tinctoria</i>	30/05/2020	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Himalayan Honeysuckle <i>Leycesteria formosa</i>	24/07/2022	Medium Impact Invasive Species
Himalayan Knotweed <i>Persicaria wallichii</i>	25/11/2017	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Hottentot-fig <i>Carpobrotus edulis</i>	24/07/2017	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Japanese Knotweed <i>Fallopia japonica</i>	13/05/2021	High Impact Invasive Regulation S.I. 477 (Ireland)
Least Duckweed <i>Lemna minuta</i>	11/10/2015	Medium Impact Invasive Species
New Zealand Pigmyweed <i>Crassula helmsii</i>	26/09/2014	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Russian-vine <i>Fallopia baldschuanica</i>	13/08/2020	Medium Impact Invasive Species
Sea-buckthorn <i>Hippophae rhamnoides</i>	14/09/2022	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Spanish Bluebell <i>Hyacinthoides hispanica</i>	09/05/2022	Regulation S.I. 477 (Ireland)
Sycamore <i>Acer pseudoplatanus</i>	24/07/2022	Medium Impact Invasive Species



Common Name	Date	Designation
Three-cornered Garlic <i>Allium triquetrum</i>	23/04/2022	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Traveller's-joy <i>Clematis vitalba</i>	03/05/2022	Medium Impact Invasive Species
Wakame <i>Undaria pinnatifida</i>	21/05/2017	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Water Fern <i>Azolla filiculoides</i>	23/08/2022	Medium Impact Invasive Regulation S.I. 477 (Ireland)
Wireweed <i>Sargassum muticum</i>	03/10/2019	High Impact Invasive Species Regulation S.I. 477 (Ireland)
<b>Mammals</b>		
Brown Rat <i>Rattus norvegicus</i>	21/12/2022	High Impact Invasive Regulation S.I. 477 (Ireland)
Eastern Grey Squirrel <i>Sciurus carolinensis</i>	27/10/2022	High Impact Invasive Species EU Regulation No. 1143/2014 Regulation S.I. 477 (Ireland)
European Rabbit <i>Oryctolagus cuniculus</i>	02/07/2017	Medium Impact Invasive Species
Fallow Deer <i>Dama dama</i>	26/06/2018	High Impact Invasive Regulation S.I. 477 (Ireland) Protected Species: Wildlife Acts
Feral Goat <i>Capra hircus</i>	26/12/2017	Medium Impact Invasive Species
House Mouse <i>Mus musculus</i>	31/12/2018	High Impact Invasive Species
Sika Deer <i>Cervus nippon</i>	16/09/2018	High Impact Invasive Species Regulation S.I. 477 (Ireland) Protected Species: Wildlife Acts

## D Habitat Map



## References

- Charles, P., Edwards, P. (Eds.), (2015). Environmental Good Practice on Site Guide, Fourth edition. ed, CIRIA C, CIRIA: London.
- CIEEM, (2018). 'Guidelines For Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater, Coastal and Marine'.
- CIRIA, (2021). CIRIA Resources Website. Available online at: [https://www.ciria.org/CIRIA/Resources/Resource\\_overview/Resources/Resources\\_overview.aspx?hkey=a80608d2-a045-4d72-8bb9-5ecf23f8d761](https://www.ciria.org/CIRIA/Resources/Resource_overview/Resources/Resources_overview.aspx?hkey=a80608d2-a045-4d72-8bb9-5ecf23f8d761)
- Collins, J. (Ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition), 4th ed, The Bat Conservation Trust, London.
- DLRCC (2022a) Final Strategic Environmental Assessment Report for the Dún Laoghaire Rathdown County Development Plan 2022-2028', available [https://www.dlrcoco.ie/sites/default/files/atoms/files/final\\_sea\\_environmental\\_report.pdf](https://www.dlrcoco.ie/sites/default/files/atoms/files/final_sea_environmental_report.pdf) [accessed 02 March 2023]
- DLRCC (2022b) 'Dún Laoghaire Rathdown County Development Plan 2022-2028', available: <https://www.dlrcoco.ie/en/county-development-plan/county-development-plan-2022-2028> [accessed 03 Jan. 2023].
- DLRCC (2022c) Appropriate Assessment Conclusion Statement for the Dn Laoghaire-Rathdown County Development Plan 2022-2028, available [https://www.dlrcoco.ie/sites/default/files/atoms/files/aa\\_conclusion\\_statement\\_.pdf](https://www.dlrcoco.ie/sites/default/files/atoms/files/aa_conclusion_statement_.pdf), [accessed 03 Jan. 2023]
- DoHLGH (2022) 'Draft River Basin Management Plan for Ireland 2022-2027', available: <https://www.gov.ie/en/publication/56b71-third-cycle-draft-river-basin-management-plan-2022-2027-consultation-report/> [accessed 28 Nov 2022].
- EEA (2018) Natura 2000 - Standard Data Form: Wicklow Mountains SAC IE0002122, available: EEA (2020a) Natura 2000 - Standard Data Form: South Dublin Bay SAC IE0000210, available: <https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0000210> [accessed 03 Jan. 23]
- EEA (2020b) Natura 2000 - Standard Data Form: North Dublin Bay SAC IE0000206, available <https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0000206> [accessed 03 Jan. 23]
- EEA (2020c) Natura 2000 - Standard Data Form: North Bull Island SPA IE0004006, available <https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0004006> [accessed 03 Jan. 23]
- EEA (2021) Natura 2000 - Standard Data Form: Sandymount Strand / Tolka Estuary SPA IE0004024, available <https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0004024> [accessed 03 Jan. 23]
- Enviroguide Consulting (2019) NATURA IMPACT STATEMENT FOR PROPOSED STRATEGIC HOUSING DEVELOPMENT AT ST PAUL'S COLLEGE, SYBIL HILL ROAD, RAHENY, DUBLIN 5
- EPA, (2022). Guidelines on the Information to Be Contained in Environmental Impact Assessment Reports DRAFT, Environmental Protection Agency. Available: <http://www.epa.ie/pubs/advice/ea/EPA%20EIAR%20Guidelines.pdf>
- EPA, (2023a). EPA Catchments.ie [online]. Available online at: <https://www.catchments.ie/maps/>
- EPA, (2023b). EPA Maps [online], Next Generation EPA Maps. Available online at: <https://gis.epa.ie/EPAMaps/>
- Fossitt, J.A., (2000). A Guide to Habitats in Ireland, Heritage Council of Ireland series, Heritage Council/Chomhairle Oidhreachta: Kilkenny.
- GSI (2023) Geological Survey Ireland Spatial Resources [online], available: <https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aac3c228> [accessed 03 January 2023].

- Irish Water (2018) 'Greater Dublin Drainage Strategy - Overview & Future Strategic Needs', available: [https://www.ringsendwwtpupgrade.ie/planning-sites/ringsend-planning/docs/planning/technical-reports/180601\\_RGD%20Planning%20App%20-%20GDDS%20-%20Overview.pdf](https://www.ringsendwwtpupgrade.ie/planning-sites/ringsend-planning/docs/planning/technical-reports/180601_RGD%20Planning%20App%20-%20GDDS%20-%20Overview.pdf) [accessed 09 Mar 2023].
- JBA, (2024). Grass Pitch Refurbishment: Kilbogget Athletics Park- AA Screening Report.
- NBDC, (2023). Biodiversity Maps - Map Viewer [online], National Biodiversity Data Centre Biodiversity Maps. Available: <http://maps.biodiversityireland.ie/#/Map>
- NPWS (2009a) Site Synopsis Dalkey Coastal Zone and Killiney Hill pNHA, available <https://www.npws.ie/protected-sites/nha>
- NPWS (2009b) Site Synopsis Loughlinstown Woods pNHA, available <https://www.npws.ie/protected-sites/nha>
- NPWS (2009c) Site Synopsis Dingle Glen pNHA available <https://www.npws.ie/protected-sites/nha>
- NPWS (2013a) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
- NPWS (2013b) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
- NPWS (2014) 'Site Synopsis Rockabill to Dalkey Island SAC 003000', available <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY003000.pdf>, [accessed 03 Jan 23]
- NPWS (2015a) 'Site Synopsis South Dublin Bay SAC 000210', available <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY000210.pdf>, [accessed 14/06/2022]
- NPWS (2015b) 'Site Synopsis South Dublin Bay and River Tolka SPA 000210', available <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004024.pdf>, [accessed 14/06/2022]
- NPWS (2015c) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
- NPWS (2015d) 'Site Synopsis Dalkey Islands SPA 004172', available <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004172.pdf>, [accessed 03 Jan 23]
- NPWS (2022) Conservation objectives for Dalkey Islands SPA [004172]. First Order Sitespecific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
- NRA, (2009). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes, National Roads Authority, available: <http://www.tii.ie/technical-services/environment/planning/Ecological-Surveying-Techniques-for-Protected-Flora-and-Fauna-during-the-Planning-of-National-Road-Schemes.pdf>
- Parnell, J. & Curtis, T., (2012). Webb's An Irish Flora [online], 8th ed, Trinity College Dublin. Available: <http://www.corkuniversitypress.com/product-p/9781859184783.htm>.
- Smith, G.F., O'Donoghue, P., O'Hora, K., Delaney, E., (2011). 'Best practice guidance for habitat survey and mapping', The Heritage Council: Ireland
- Stace, C (2019) The New Flora of the British Isles 4th Edition

**JBA**  
consulting

Offices at  
Dublin  
Limerick

Registered Office  
24 Grove Island  
Corbally  
Limerick  
Ireland

t: +353 (0) 61 345463  
e: info@jbaconsulting.ie

JBA Consulting Engineers and  
Scientists Limited

Registration number 444752

JBA Group Ltd is certified to:  
ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007



Visit our website  
[www.jbaconsulting.ie](http://www.jbaconsulting.ie)