

ECOLOGICAL IMPACT ASSESSMENT (EcIA)

FOR PROPOSED DEVELOPMENT

AT

SAMUEL BECKETT CIVIC CAMPUS

BALLYOGAN

CO. DUBLIN



Prepared for

Dún Laoghaire-Rathdown County Council

Prepared by

Traynor Environmental Ltd

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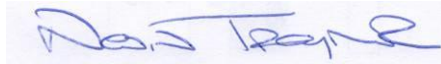
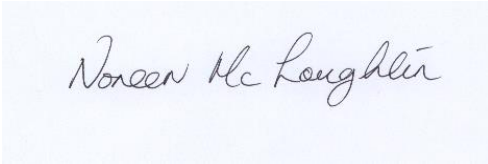


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Issue	Date	Details	Prepared by	Checked By	Approved by
1	29 th February 2024	Draft Report	Angela Kelly	Nevin Traynor Environmental Consultant	Noreen Mc Loughlin Ecologist
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3	8 th March 2024	Final Report	Angela Kelly	Nevin Traynor Environmental Consultant	Noreen Mc Loughlin Ecologist

This report refers, within the limitations stated, to the condition of the site at the time of the report. No warranty is given as to the possibility of future changes in the condition of the site. The report as presented is based on the information sources as detailed in this report, and hence maybe subject to review in the future if more information is obtained or scientific understanding changes.

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1.0 Introduction

1.1 The Aim of the Report

This Ecological Impact Assessment (EcolA) addresses the potential ecological and biodiversity impacts that may occur in the future arising from a proposed Part 8 development at the Samuel Beckett Civic Campus, Ballyogan, Dublin 18.

This EclA was prepared in accordance with the CIEEM 2018 guidance on EclA (CIEEM, V. 1.2, updated April 2022), whilst also having regards to the CIEEM EclA Checklist (2019).

It follows a standard approach based upon the description of the existing baseline conditions within the application site. An evaluation of the likely habitats and species currently present within the application site is also given, along with the identification of the potential ecological impacts (if any) arising from the construction and operation of the proposed development. An assessment of the likely significance of the identified impacts on valued ecological receptors (VERs), both within and close to the application site is also made. Where a significant negative impact has been identified, then suitable remedial mitigation measures are provided in order to prevent, reduce, or offset the impact.

1.2 Legislative and Policy Context

Legislative Context

The Irish Wildlife Act 1976 (and its amendment of 2000) provides protection to most wild birds and animals. Interference with such species can only occur under licence. Under the act it is an offence to "wilfully interfere with or destroy the breeding place or resting place of any protected wild animal." The basic designation for wildlife is the Natural Heritage Area (NHA). This is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection. Under the Wildlife Amendment Act (2000) NHAs are legally protected from damage.

The Flora Protection Order 1999 provides statutory protection in Ireland to a number of rare plant species from being wilfully cut, picked, uprooted, or damaged. It is also illegal under this order to alter, damage or interfere with their habitats.

The Birds Directive (Council Directive 2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive.

SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly occurring populations of migratory bird species and the SPA areas are of international importance for these migratory birds.

The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.

The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003). The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2027 and that status doesn't deteriorate in any waters.

Planning Policies

National

Nationally, the Government's commitment to sustainable development is set out in a number of documents including the National Planning Framework and the National Development Plan 2018 – 2027.

Regional

Planning at the regional level is now guided by the Regional Spatial and Economic Strategy (RSES). The RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives.

Local

Planning policy at the local level is provided by the Dún Laoghaire-Rathdown County Development Plan 2022-2028. This plan contains a number of objectives and policies relevant to ecology, green infrastructure, biodiversity, and nature conservation (Chapter 8). Some of these relevant measures are outlined in Table 1.

Table 1 – Local Policies Relevant to Ecology and Nature Conservation

Reference	Objective / Policy
Policy Objective GIB1: Green Infrastructure Strategy	<i>It is a Policy Objective to continue to implement, and update, the DLR Green Infrastructure (GI) Strategy, to protect existing green infrastructure and encourage and facilitate, in consultation with relevant stakeholders, the development, design and management of high quality natural and semi-natural areas. This recognises the ecosystems approach and the synergies that can be achieved with regard to sustainable transport, provision of open space, sustainable management of water, protection, and enhancement of biodiversity.</i>
Policy Objective GIB18: Protection of Natural Heritage and the Environment	<i>It is Council policy to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important EU designated sites – such as Special Protection Areas, candidate Special Areas of Conservation, proposed Natural Heritage Areas and Ramsar sites – as well as non-designated areas of high nature conservation value which serve as “stepping stones” for the purposes of the Habitats Directive.</i>
Policy Objective GIB19: Habitats Directive	<i>It is a Policy Objective to ensure the protection of natural heritage and biodiversity, including European Sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.</i>
Policy Objective GIB21: Designated Sites	<i>It is a Policy Objective to protect and preserve areas designated as proposed Natural Heritage Areas, Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of ‘favourable’ conservation status of habitats and species within these areas.</i>

<p>Policy Objective GIB22: Non-Designated Areas of Biodiversity Importance</p>	<p><i>It is a Policy Objective to protect and promote the conservation of biodiversity in areas of natural heritage importance outside Designated Areas and to ensure that notable sites, habitats and features of biodiversity importance - including species protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992, Birds and Habitats Regulations 2011, Flora (Protection) Order, 2015, Annex I habitats, local important areas, wildlife corridors and rare species - are adequately protected. Ecological assessments will be carried out for all developments in areas that support, or have potential to support, features of biodiversity importance or rare and protected species and appropriate mitigation/avoidance measures will be implemented. In implementing this policy, regard shall be had to the Ecological Network, including the forthcoming DLR Wildlife Corridor Plan, and the recommendations and objectives of the Green City Guidelines (2008) and 'Ecological Guidance Notes for Local Authorities and Developers' (Dún Laoghaire-Rathdown Version 2014).</i></p>
<p>Policy Objective GIB23: County Wide Ecological Network</p>	<p><i>It is a Policy Objective to protect the Ecological Network which will be integrated into the updated Green Infrastructure Strategy and will align with the DLR County Biodiversity Action Plan. Creating this network throughout the County will also improve the ecological coherence of the Natura 2000 network in accordance with Article 10 of the Habitats Directive. The network will also include non-designated sites.</i></p>
<p>Policy Objective GIB24: Rivers and Waterways</p>	<p><i>It is a Policy Objective to maintain and protect the natural character and ecological value of the river and stream corridors in the County and where possible to enhance existing channels and to encourage diversity of habitat and nature-based solutions that incorporate biodiversity features. It is also policy (subject to the sensitivity of the riverside habitat), to provide public access to riparian corridors, to promote improved passive recreational activities.</i></p>
<p>Policy Objective GIB25: Hedgerows</p>	<p><i>It is a Policy Objective to retain and protect hedgerows in the County from development, which would impact adversely upon them. In addition, the Council will promote the protection of existing site boundary hedgerows and where feasible require the retention of these when considering a grant of planning permission for all developments. The Council will promote the County's hedgerows by increasing coverage, where possible, using locally native species and to develop an appropriate code of practice for road hedgerow maintenance. The Council will promote the protection of existing hedgerows when considering a grant of planning permission for all developments.</i></p>
<p>Policy Objective GIB28: Invasive Species</p>	<p><i>It is a Policy Objective to prepare an 'Invasive Alien Species Action Plan' for the County which will include actions in relation to Invasive Alien Species (IAS) surveys, management, and treatment and to also ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are or were previously present, the applicants will be required to submit a control and management program for the particular invasive species as part of the planning process and to comply with the</i></p>

	<i>provisions of the European Communities Birds and Habitats Regulations 2011 (S.I. 477/2011).</i>
Policy Objective GIB29: Nature Based Solutions	<i>It is a Policy Objective to increase the use of Nature Based Solutions (NBS) within the County, and to promote and apply adaption and mitigation actions that favour NBS, which can have multiple benefits to the environment and communities. NBS has a role not only to meet certain infrastructure related needs (e.g. flooding management), and development needs, but also to maintain or benefit the quality of ecosystems, habitats, and species.</i>

Heritage Plans

Ireland's National Biodiversity Plan identifies actions that need to be taken in order to understand and protect biodiversity in Ireland. It states that biodiversity and ecosystems in Ireland should be conserved and restored, to deliver benefits that are essential to all sectors of society and that Ireland should contribute to the efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.

The Dún Laoghaire-Rathdown Heritage Plan 2021-2025 and the Dún Laoghaire-Rathdown Biodiversity Action Plan 2021-2025 also identify a number of objectives and policies in order to protect the natural heritage and biodiversity of the Dún Laoghaire-Rathdown area.

2.0 METHODOLOGY

This EclA has been prepared having regards to the following guidelines:

- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning & Local Government, 2018).
- Guidelines for Ecological Impact Assessment in the UK and Ireland, (Chartered Institute of Ecology and Environmental Management) (CIEEM, 2018, updated 2022).
- Ecological Impact Assessment (EclA) Checklist (CIEEM, 2019)
- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017).
- Guide to Habitats in Ireland (Fossitt, 2000).
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022).
- Guidelines for Assessment of Ecological Impacts of National Roads Schemes: Revision 2 (National Roads Authority, 2009).
- Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).

2.1 STATEMENT OF COMPETENCE

This EclA was carried out by Nevin Traynor Environmental Scientist BSc Env. and Noreen McLoughlin, BA, MSc, MCIEEM. Nevin has an honours degree in Environmental Science from Sligo IT. Nevin has over 18 years' experience as an Environmental Consultant in Ireland. Noreen has an honours degree in Zoology and an MSc in Freshwater Ecology from Trinity College, Dublin and she has been a full member of the Chartered Institute of Ecology and Environmental Management for over 15 years. Noreen has over 17 years' experience as a professional ecologist in Ireland.

For the purpose of the preparation of this EclA, the field surveys and supporting reports were carried out by a number of different specialists.

- Birds – Hugh Delaney is an ecologist (ornithologist primarily) having completed work on numerous sites with ecological consultancies over 30+ years. Hugh is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years.
- Habitats, Flora, Invertebrates, Freshwater Ecology – Noreen McLoughlin BA MSc MCIEEM.
- Mammals and Bats - Dr Tina Aughney, Bat Eco Services

2.2 STUDY AREA/ZONE OF INFLUENCE

The study area encompassed the entire area of land within the Samuel Beckett Civic Campus in Ballyogen. Any important ecological habitats, species, and receptors outside this area yet within the Zone of Influence of the proposed development were also considered. The Zone of Influence (Zoi) is a distance within which the proposed works could affect key ecological receptors. The Zoi is likely to vary for each receptor, and ultimately it will depend on the source and type of the impact, the longevity of the impact, the sensitivity of the receptor and the presence of a pathway between the two. In this instance, the most significant impacts will arise from the construction works and the potential for these to generate pollution to local surface waters, along with habitat loss and disturbance of habitats and species

2.3 DESK BASED STUDIES

The desk study involved the examination of aerial photographs, current and historical maps and plans and drawings of the site. In addition, information was collated on designated nature sites within a 15km or 5km radius of the proposed site and on protected and rare species within the 1km square of the site. The following websites were used to access information and data:

- National Parks and Wildlife Service - Aerial photographs and maps of designated sites, information on habitats and species within these sites and information on protected plant or animal species, conservation objectives, site synopses and standard data forms for relevant designated sites.
- Environmental Protection Agency (EPA)- Information pertaining to water quality, geology, and licensed facilities within the area;
- Myplan.ie – Mapped based information;
- National Biodiversity Data Centre (NBDC) – Information pertaining to protected plant and animal species within the study area;
- Bing maps & Google Street View – High quality aerials and street images;
- Traynor Environmental Ltd – Plans and Information Pertaining to the Development
- Dún Laoghaire–Rathdown County Council – Plans and Supplementary Information on the Proposed Development

2.4 Field Based Studies

Habitats and Flora

A habitat survey of the application site was undertaken by Noreen McLoughlin MSC CIEEM on January 3rd 2024, when the habitats within the proposed development site were noted, and field notes, species lists and photographs were taken. The site was surveyed in accordance with the Heritage Council's *Habitat Survey Guidelines* (Smith et al., 2010) and the Institute of Environmental Assessment's *Guidelines for Baselines Ecological Assessment* (IEA, 1995). Habitats within the development site were classified in accordance to Level 3 of *A Guide to Habitats in Ireland* (Fossit, 2000). These habitats are denoted in the text along with their habitat code, e.g., the habitat code for improved agricultural grassland is GA1.

Bats

Bat Eco Services was requested by Traynor Environmental to survey Samuel Beckett Civic Campus, Ballyogan, Co. Dublin. This was surveyed to determine if the location has bat roosting, commuting and foraging potential. A site visit was undertaken on 20th January 2024. The proposed site is primarily a green space site in an urban setting. In order to provide commuting and foraging habitat for local bat populations, tall linear habitat vegetation is important. Within the proposed development site, there are individual trees located along the boundary but they have limited potential for local bat populations.

Terrestrial Mammals

Bat Eco Services was requested by Traynor Environmental to deploy trail cameras at the rough vegetation area in the north-eastern corner of the Samuel Beckett Civic Campus, Ballyogan, Co. Dublin. Three trail cameras were deployed on 2nd February 2024 and collected on 9th February 2024 (1 week's deployment) in order to determine if there are any terrestrial mammals using the survey area.

Birds

During January and February 2024, 5 winter bird surveys were undertaken at lands at Samuel Beckett Civic Campus, Ballyogan, County Dublin by Hugh Delaney, a freelance Ecologist (Birds primarily) having completed work on numerous sites with ecological consultancies over 10+ years. Hugh is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years. Five wintering bird surveys of the site was carried out by Hugh Delaney, ornithologist. Surveys were carried out on 18/1/20, 24/1/2024, 30/1/24, 9/2/24 and 20/2/24. Each survey lasted approximately 6 hours. The site was monitored throughout the survey, observing from the south side of the site mainly from a raised area just north of the artificial playing fields which provided an optimal vantage point with views

over the site. Species recorded foraging on-site were documented hourly during the surveys. Playing areas were checked each survey for evidence of Brent Geese scat.

2.5 Constraints of the Study

The habitats within site were assessed in December 2023, January, and February 2024. Having regards to the limited range of habitats on the site, this timing was not considered to be a significant constraint. The timing of the winter bird and mammal surveys on the site were optimal. Having regards to the lack of suitable habitat on the site for bats, combined with the high level of existing street lighting, it was considered that there were no significant constraints in the timing of the bat survey.

2.6 Assessment Methodology

2.6.1 Evaluation of Ecological Features

The methodologies used to determine the value of ecological resources, to characterise the impacts of the proposed scheme, and to assess the significance of impacts and any residual effects are described below. This approach is in accordance with EPA guidance and the CIEEM's (Chartered Institute of Ecology and Environmental Management) guidelines. CIEEM suggest that to ensure a consistency of approach, ecological features are valued in accordance with their geographical frame of reference, as defined below:

- International
- National (Ireland)
- Regional (East)
- County (Dublin / Dún Laoghaire-Rathdown)
- Local/Townland (Ballyogan)

The above categories are then applied to the ecological features identified. Ecological features can be defined as:

- Designated sites (i.e., SACs, SPAs, NHAs, pNHAs, National Nature Reserves) or non-statutory locally designated sites and features.

Non-designated sites and habitats and features of recognised biodiversity value, such as rivers and streams. The features being evaluated can be considered in the context of the site and locality and thus a more accurate assessment of the impacts in the locality can be made.

2.6.2 Assessment of Impacts

The assessment of potential ecological impacts has been carried out using guidelines published by the EPA and the CIEEM. They can be summarised as:

- The identification of the range of potential impacts which can reasonably be expected to occur should the proposed developments receive planning consent;
- The consideration of the systems and processes in place to avoid, reduce and mitigate the possible effects of these impacts;
- The identification of opportunities for ecological enhancement within the site.

Impacts are defined as being positive, negative, or neutral. A significant impact is defined as an impact upon the integrity of a defined ecosystem and/or the conservation status of a habitat or species within a given area.

Where a potential negative impact has been identified, mitigation measures have been formulated using best practices techniques and guidance to prevent, reduce or offset the impact.

3.0 PROPOSED DEVELOPMENT

The proposed development consists of the following:

Delivery of a Sustainably Built Multi-Purpose Sports Facility, including large format Sports Hall with spectator seating, 25m 6-lane Swimming Pool with spectator seating, Children's pool, Exercise Equipment Gym, Dance Studios, Fitness Room, Multi-purpose exercise/club rooms, coffee dock, Reception Hub, and ancillary rooms inc. changing rooms, FM office, back office, plant rooms etc.

Revised Site Landscaping to include retention and improvement of Playing Pitches, Changing and viewing areas, Creation of Mobility Hub (Bike & EV), Walking, Running and Cycling routes, enhanced parking, nature-based SuDS, and biodiversity measures. New Civic Space, Teenage Area, Playground and Skate Park(s).

The three existing playing pitches within the site will remain as they currently are.

Permission for these works will be sought by Dún Laoghaire–Rathdown County Council under Part VIII of planning process.

An extract from the planning drawings as submitted is shown in Figures 1a, 1b and 1c.

Figure 1a – Extract from Site Layout Plan

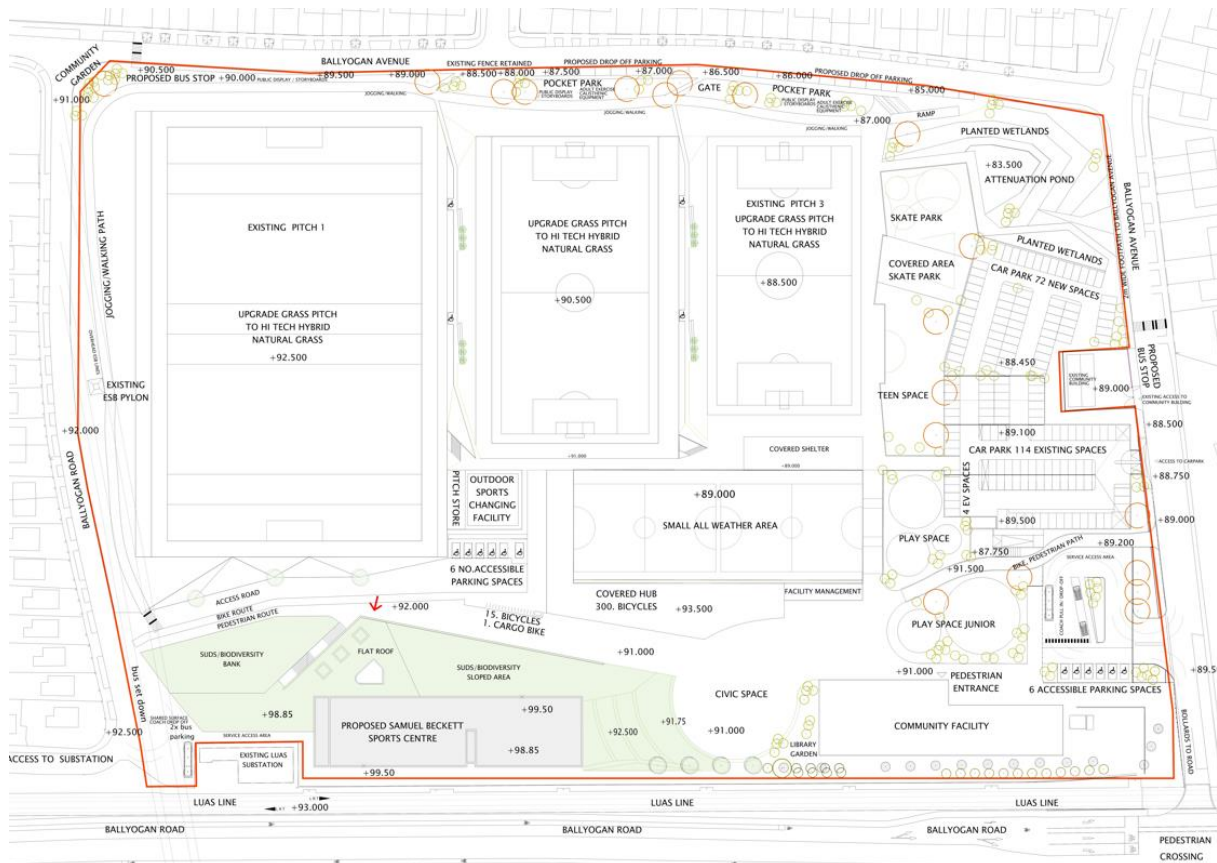


Figure 1b - 3D View of Site Layout Plan**Figure 1c - 3D View of Site Layout Plan**

Surface Water Management

The new building will have approx. 50% extensive green roof. There is currently drainage beneath the 3 main pitches and there is also an existing large open attenuation area in the north-eastern section of the site, which has capacity for the whole site including the proposed sports building. This attenuation area has a geotextile membrane at its base. It is now proposed to enhance this area by including more nature-based elements. It is also intended to include significantly more hedgerow on site and shallow swales will be incorporated between the three main pitches.

It is also proposed that strategies will be employed to conserve and protect water resources and prioritise nature-based solutions. Methods of on-site water recycling will be employed, such as greywater use for cisterns and irrigation.

Water Consumption

The construction or operation of the scheme will not use such a quantity of water to cause concern in relation to significant effects on the environment. During construction of the scheme, water will be required for offices, welfare facilities, this will be provided by either tanker or temporary connection to the public main by agreement with Uisce Éireann. The construction phase will not use such a quantity of water to cause concern in relation to significant effects on the environment. There is no proposed extraction of groundwater at the site.

Once the development is completed and the development is occupied there will be a domestic water requirement for showers, toilets, and canteen/coffee dock. A pre connection enquiry has been submitted to Uisce Éireann for connection to the public water supply and foul sewer. The water demand will amount to 600m³ per month. The Average business water demand is approximately 0.15 litres/second with an average peak weekly demand of 0.69 litres/sec. The Average industrial water demand is approximately 3 - 5 litres/second with an average peak weekly demand of 3 – 5 litres/sec.

Wastewater Management

A pre connection enquiry has been submitted to Uisce Éireann for connection to the public water supply and foul sewer. Wastewater from the site will be directed to the public foul sewer There will be no on site wastewater treatment plant or associated percolation area.

- Average domestic discharge = 0.11l/s
- Peak Domestic Discharge – 6 x DWF = 0.66l/s
- Average & Peak non-domestic discharge 3 to 5l/s

4.0 RECEIVING ENVIRONMENT

This section provides an overview of the existing ecological conditions within the site and the surrounding environment.

4.1 Site Location & Surrounding Environment

The application site is 7.1ha and it encompasses the entire Samuel Beckett Civic Amenity site, which currently includes football pitches, all weather sports pitches, skate parks and a community centre. The site is located in an urban / sub-urban area, and access is provided by an existing entrance at the eastern perimeter of the site, from the Ballyogan Court Road.

The site is bounded to the east by the Ballyogan Court Road, to the north by Ballyogan Ave, to the west by the Leopardstown Abbey Road and to the south by the Ballyogan Road. The Luas Line also lies to the immediate south of the site, along the Ballyogan Road. The site is close to the urban centres of Stepaside, Carrickmines and Leopardstown.

Under the Dún Laoghaire-Rathdown County Council Development Plan, the Zoning Objective of the Site is G1, i.e., to preserve and provide for open space with ancillary active recreational amenities.

Site location maps can be seen in Figures 2 and 3.

Figure 2 – Site Location Map (Site Pinned)

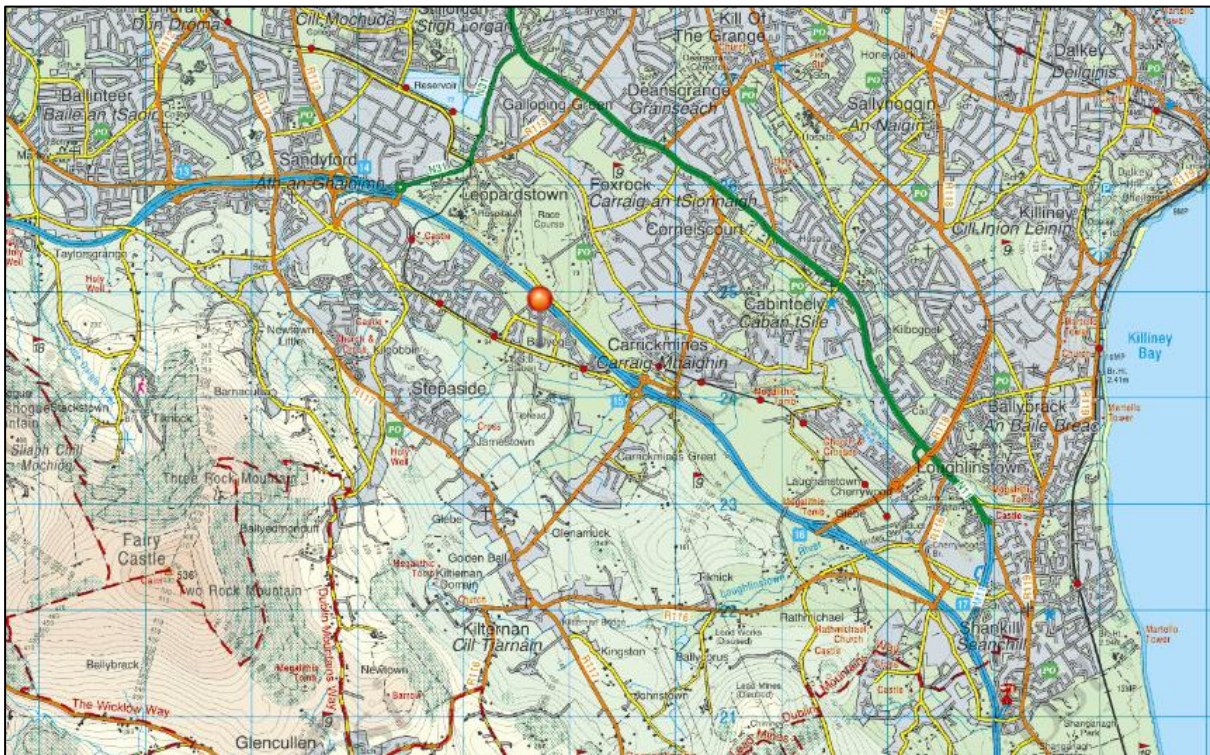


Figure 3 – Site Location Map. Application Site are Outlined in Red.



The main habitats surrounding the site were assessed using a drive through around the site and with up-to-date aerial photographs (Google, OSI, Bing Maps). The main habitats recorded locally include buildings and artificial surfaces (mostly residential and commercial areas, along with roads and car parks), amenity gardens and grasslands, and scattered trees and parkland. An overview of the local habitats can be seen in the aerial photograph in Figure 4.

Figure 4 – Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats



4.2 Designated Sites

Natura 2000 Sites

The proposed application site is not within or immediately adjacent to any site that has been designated as a Special Area of Conservation (SAC) or a Special Protection Area (SPA) under the EU Habitats or EU Birds Directive.

There are fifteen Natura 2000 sites within 15km of this proposed development. These sites are summarised in Table 2. The location of the application site in relation to these designated areas is shown in Figure 5 and a full synopsis of these sites can be read online on the website of the National Parks and Wildlife Service (www.npws.ie). Connectivity to each of these sites from the application site is also considered.

Table 2 – Natura 2000 Sites Within 15km of the Proposed Site

Site Name & Code	Distance from Site	Qualifying Interests	Screened In / Out
South Dublin Bay and River Tolka Estuary SPA 004024	4.7km north-east	<ul style="list-style-type: none"> • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) • Oystercatcher (<i>Haematopus ostralegus</i>) • Ringed Plover (<i>Charadrius hiaticula</i>) • Grey Plover (<i>Pluvialis squatarola</i>) • Knot (<i>Calidris canutus</i>) • Sanderling (<i>Calidris alba</i>) • Dunlin (<i>Calidris alpina</i>) • Bar-tailed Godwit (<i>Limosa lapponica</i>) • Redshank (<i>Tringa totanus</i>) • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) • Roseate Tern (<i>Sterna dougallii</i>) • Common Tern (<i>Sterna hirundo</i>) • Arctic Tern (<i>Sterna paradisaea</i>) • Wetland and Waterbirds 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SPA.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SPA and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>As determined following five wintering bird surveys of the site by an ornithologist, small numbers of Black-headed gulls were noted foraging occasionally on the site (never more than 5 individuals). No other QI wader species from this SPA were noted. No signs or scats of brent geese were noted in the grass. The proposed development will not lead to any disturbance of or significant effects upon the bird species of this SPA.</p>
South Dublin Bay SAC 000210	4.7km north-east	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide • Annual vegetation of drift lines • Salicornia and other annuals colonising mud and sand • Embryonic shifting dunes 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects</p>

			<p>arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Knocksink Wood SAC 000725	5km south	<ul style="list-style-type: none"> • Petrifying springs with tufa formation (Cratoneurion) • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Ballyman Glen SAC 000713	5.5km south	<ul style="list-style-type: none"> • Petrifying springs with tufa formation (Cratoneurion) • Alkaline fens 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Wicklow Mountains SAC 002122	5.8km south-west	<ul style="list-style-type: none"> • Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) • Natural dystrophic lakes and ponds • Northern Atlantic wet heaths with <i>Erica tetralix</i> • European dry heaths • Alpine and Boreal heaths • Calaminarian grasslands of the <i>Violetalia calaminariae</i> 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p>

		<ul style="list-style-type: none"> • Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) • Blanket bogs (* if active bog) • Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) • Calcareous rocky slopes with chasmophytic vegetation • Siliceous rocky slopes with chasmophytic vegetation • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles • <i>Lutra lutra</i> (Otter) 	<p><i>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</i></p>
Wicklow Mountains SPA 004040	6.3km south-west	<ul style="list-style-type: none"> • Merlin (<i>Falco columbarius</i>) • Peregrine (<i>Falco peregrinus</i>) 	<p><i>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SPA.</i></p> <p><i>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SPA and significant effects arising from pollution during construction or operation can be ruled out.</i></p> <p><i>The site does not support any habitat that could be used by the QIs of this SPA and significant effects upon these species will not arise.</i></p>
Rockabill to Dalkey Island SAC 003000	6.6km east	<ul style="list-style-type: none"> • Reefs • <i>Phocoena phocoena</i> (Harbour Porpoise) 	<p><i>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</i></p> <p><i>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</i></p>

			<p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Dalkey Island SPA 004172	6.7km north-east	<ul style="list-style-type: none"> Roseate Tern (<i>Sterna dougallii</i>) Common Tern (<i>Sterna hirundo</i>) Arctic Tern (<i>Sterna paradisaea</i>) 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SPA.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SPA and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>As determined following an assessment of the site by an ornithologist, none of these QI species occur on site and the site does not support sufficient or suitable habitat that could be used by the QIs of this SPA (especially brent geese) and significant effects upon these species will not arise.</p>
Bray Head SAC 000714	9.4km south-east	<ul style="list-style-type: none"> Vegetated sea cliffs of the Atlantic and Baltic coasts European dry heaths 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
North Bull Island SPA 004006	9.5km north	<ul style="list-style-type: none"> Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) Shelduck (<i>Tadorna tadorna</i>) Teal (<i>Anas crecca</i>) Pintail (<i>Anas acuta</i>) Shoveler (<i>Anas clypeata</i>) Oystercatcher (<i>Haematopus ostralegus</i>) Golden Plover (<i>Pluvialis apricaria</i>) 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SPA.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SPA and significant effects arising from pollution during construction or operation can be ruled out.</p>

		<ul style="list-style-type: none"> • Grey Plover (<i>Pluvialis squatarola</i>) • Knot (<i>Calidris canutus</i>) • Sanderling (<i>Calidris alba</i>) • Dunlin (<i>Calidris alpina</i>) • Black-tailed Godwit (<i>Limosa limosa</i>) • Bar-tailed Godwit (<i>Limosa lapponica</i>) • Curlew (<i>Numenius arquata</i>) • Redshank (<i>Tringa totanus</i>) • Turnstone (<i>Arenaria interpres</i>) • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) • Wetland and Waterbirds 	<p>As determined following five wintering bird surveys of the site by an ornithologist, small numbers of Black-headed gulls were noted foraging occasionally on the site (never more than 5 individuals). No other QI wader species from this SPA were noted. No signs or scats of brent geese were noted in the grass. The proposed development will not lead to any disturbance of or significant effects upon the bird species of this SPA.</p>
North Dublin Bay SAC 000206	9.9km north	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide • Annual vegetation of drift lines • Salicornia and other annuals colonising mud and sand • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) • Mediterranean salt meadows (<i>Juncetalia arenaria</i>) • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) • Fixed coastal dunes with herbaceous vegetation (grey dunes) • Humid dune slacks • <i>Petalophyllum ralfsii</i> (Petalwort) 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Glenasmole Valley SAC 001209	10.7km west	<ul style="list-style-type: none"> • Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) • Molinia meadows on calcareous, peaty, or clayey-silt-laden soils (<i>Molinion caeruleae</i>) • Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p>

			<p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Glen of the Downs SAC 000719	13.3km south	<ul style="list-style-type: none"> • Old sessile oak woods with Ilex and Blechnum in the British Isles 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Howth Head SAC 000202	13.6km north-east	<ul style="list-style-type: none"> • Vegetated sea cliffs of the Atlantic and Baltic coasts • European dry heaths 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SAC.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SAC and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>There will be no direct or indirect impacts or significant effects upon the QIs of this SAC.</p>
Howth Head Coast SPA 004113	14.7km north-east	<ul style="list-style-type: none"> • Kittiwake <i>Rissa tridactyla</i> 	<p>Screened Out - There is no potential for direct effects as the proposed works area is located entirely outside the boundary of this SPA.</p> <p>There are no watercourses on the site, therefore there are no source-pathway-receptor linkages between the application site and this SPA and significant effects arising from pollution during construction or operation can be ruled out.</p> <p>The site does not support any habitat that could be used by the QIs of this SPA and significant effects upon these species will not arise.</p>

The generic conservation objectives of these sites are:

To maintain or restore the favourable conservation condition of the species listed as Special Conservation Interests for this SAC / SPA.

The favourable conservation status of a habitat is achieved when:

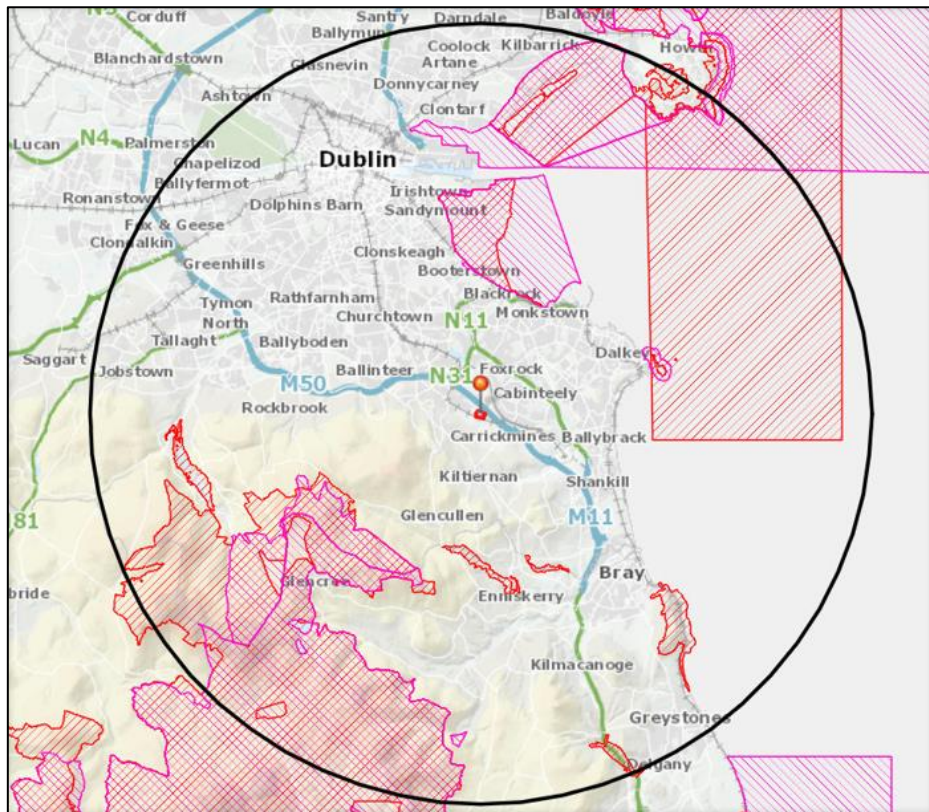
- Its natural range and area it covers within that range is stable or increasing and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- The population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

An Appropriate Assessment Screening Report as required under Article 6(3) of the EU Habitats Directive has been prepared in relation to this proposed application at the Samuel Beckett Amenity Centre. This screening report concluded that the proposed development will have no significant effects upon any of the Natura 2000 sites identified above.

Figure 5 – The Application Site (Pinned) in relation to the Natura 2000 Sites (SACs – Red Hatching; SPAs – Pink Hatching). 15km Boundary Shown.



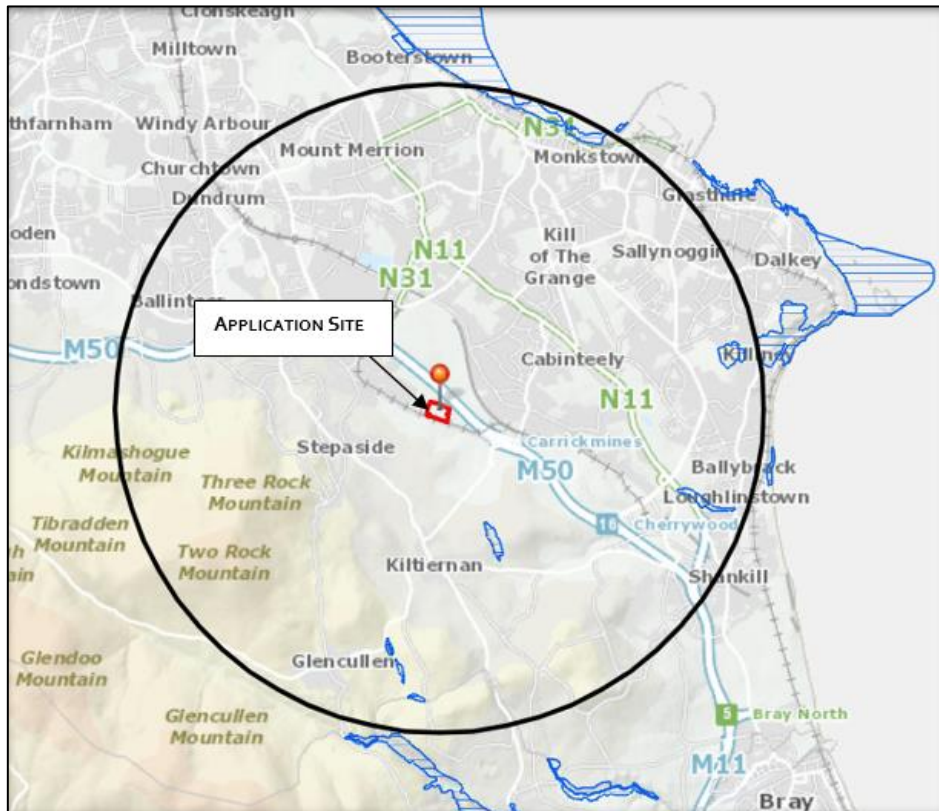
Nationally Important Sites

The application site is not within or immediately adjacent to any nationally designated site, such as a Natural Heritage Area or a proposed Natural Heritage Area. It is within 5km of six sites that have been designated as proposed Natural Heritage Areas. These are summarised in Table 3 and a map showing their location relative to the application site is shown in Figure 6.

Table 3 – Nationally Important Sites within 5km of the Proposed Development

Site Name	Distance from Proposed Development
Loughlinstown Woods pNHA 001211	3.8km east
Dalkey Coastal Zone and Killiney Hill pNHA 001206	4.3km north-east
Dingle Glen pNHA 001207	1.7km south
Ballybetagh Bog pNHA 001202	3.5km south
Fitzsimons Woods 001753	2.5km north-west
South Dublin Bay pNHA 000210	4.8km north

Figure 6 – The Application Site (Pinned) in relation to the Map Showing the Location of the Proposed Works (Pinned) in Relation to Nationally Designated Sites (Blue Hatching). 15km Boundary Shown.



4.3 Flora

Habitats within the Study Area

No part of the site lies within any area that is designated for nature conservation purposes. All proposed development works within the application site will take place on areas of low biodiversity value.

The main habitats within the application site include Amenity Grasslands (GA2) and Buildings and Artificial Surfaces (BL3). The Amenity Grassland habitat dominates the site and it consists of the three existing playing pitches and pockets of lawns within the site. The Buildings and Artificial Surfaces include the Community / Family Resource Centre, the car parks, the existing skatepark and playground, and the all-weather pitches.

The vegetation within the site is limited. The grassland habitat is dominated by a tightly cut sward dominated by rye grasses (*Lolium* sp) and meadow grasses (*Poa* sp.). There is a Hedgerow (WL1) dominated by buddleia *Buddleja davidii* along the southern site boundary (along the Luas tracts). There are also some scattered immature trees (mostly *Acer* sp) planted along the western, eastern, and northern site boundaries.

There is a small, undeveloped damp hollow in the north-eastern corner of the site which was initially developed as the attenuation area for the entire site. This corner consists of a Dry Meadow and Grassy verge type habitat (GS2) with small elements of developing Scrub WS1, and the central and lowest part of the site is likely to be damp from the drainage from the site. Species noted here included mixed grasses dominated by cocksfoot *Dactylis glomerata*, along with broadleaved species including ragwort *Senecio jacobaea*, brambles *Rubus fruticosus* agg and willows *Salix* sp.

A habitat map of the site is provided in Figure 7. Photos of the site are presented in Appendix I.

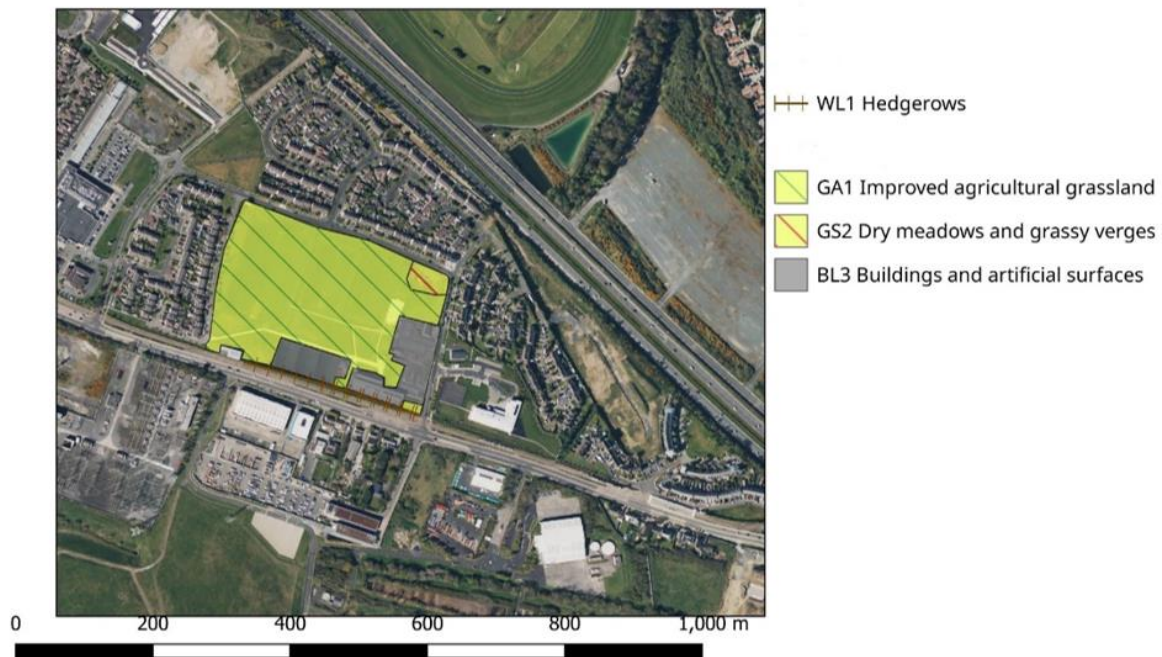
Overall Habitat Evaluation – The ecological value of the habitats within the site is low, as all habitats in the site are artificial or are highly modified. The trees planted as part of the landscaping on the site are largely non-native and they provide no opportunity for connection to ecological corridors outside of the site. Within the site, the area of highest ecological value within the site is the undeveloped attenuation area in the north-eastern corner of the site, however even in a local context this is considered to be of low ecological value only.

Rare and Protected Plant Species

An examination of the website of the National Parks and Wildlife, the National Biodiversity Data Centre and the Online Atlas of Vascular Plants for Ireland revealed that there are no records for any plant species protected under the Flora Protection Order from within the 1km square (O2024) of the proposed application sites.

Invasive Species

No non-native invasive species that are listed in Schedule Three of the Birds and Habitats Regulations (2011) were recorded from within the study area during site visits carried out by Noreen Mc Loughlin. Particular attention was paid to the potential presence of Japanese knotweed *Fallopia japonica*, which is very common throughout the Greater Dublin Area.

Figure 7 – Map Showing the Main Habitats within the Site (Q-GIS)


4.4 Fauna

Protected Mammals

Records from the National Biodiversity Data Centre reveal the presence of the following protected mammal species from within the 10km square (O22) of this proposed application site:

- Badger *Meles meles*
- Brown long-eared bat *Plecotus auratus*
- Daubenton's bat *Myotis daubentonii*
- European Hedgehog *Erinaceus europaeus*
- Irish Hare *Lepus timidus* subsp. *hibernicus*
- Irish stoat *Mustela 25rmine* subsp. *hibernica*
- Lesser Noctule *Nyctalus leisleri*
- Nathusius's Pipistrelle *Pipistrellus nathusii*
- Natterer's bat *Myotis nattereri*
- Otter *Lutra lutra*
- Pine martin *Martes martes*
- Pipistrelle *Pipistrellus pipistrellus* sensu lato
- Pygmy shrew *Sorex minutus*
- Red deer *Cervus elaphus*
- Red squirrel *Sciurus vulgaris*
- Soprano Pipistrelle *Pipistrellus pygmaeus*
- Whiskered bat *Myotis mystacinus*

All these species are protected under the Irish Wildlife Acts. In addition, the otter *Lutra lutra* is protected under Annex II of the European Habitats Directive.

Three trail cameras were deployed on 2nd February 2024 and collected on 9th February 2024 (1 weeks deployment) in order to determine if there are any terrestrial mammals using the survey area. Only one species of terrestrial mammal was recorded: Red Fox. A minimum of two foxes (general size and markings) are considered to use the survey area.

This species is common and widespread across Ireland (Looney, 2016). It is considered to be an extremely adaptable species in relation to habitat requirements generalist species and therefore found in a wide array of habitats. The Red fox form monogamous pairs to small family groups (one dog fox and several related vixens, which apart from the dominant female, do not breed). It is an omnivore with a wide ranging diet. Some foxes are resident in an area while others are highly nomadic. The fox population is considered to be relatively stable in Ireland. The fox digs an underground home called an earth or den for shelter during poor weather (usually under hedgerows, in rock crevices or drains) but will live above ground in good weather (Browne, 2005). Breeding usually takes place over winter with cubs born in February and April. The vixen has one litter per year and the more successful adults usually live for four years.

Therefore it is important to ensure that Red foxes can continue to traverse safely through the proposed development site safely. Any sort of fencing proposed must allow mammals to continue to access the site and not become "trapped" along an impenetrable fence line. As per bat guidelines, measures relating to outdoor lighting also applied. Additional planting (landscaping) will also benefit Red fox movement and, in general, increase biodiversity benefits, particularly if such planting is native tree and shrub species.

Bats

While bats can roost in a wide array of buildings, the usage of such buildings is influence by the surroundings and whether bats are likely to be commuting and foraging in vicinity of such. As a result of the limited tall vegetation (a total of 53 individual trees spaced out along 3 boundaries) the roosting potential is greatly reduced.

In addition, bats are an nocturnal mammal and therefore Artificial Lighting at Night (ALAN) can have a negative impact on local bat populations. Light levels as low as typical full moon levels, i.e. around 0.1 LUX, can alter the flight activity of bats (Voigt *et al.* 2018). Any level of artificial light above that of moonlight can mask the natural rhythms of lunar sky brightness and, thus, can disrupt patterns of foraging and mating and might, for instance, interfere with entrainment of the circadian system. Artificial light pollution is an increasing global problem (Rich and Longcore, 2006) and Artificial light at night (ALAN) is considered a major threat to biodiversity, especially to nocturnal species. As urbanisation expands into the landscape, the degree of street lighting also expands. Its ecological impacts can have a profound affect the behaviour of nocturnal animals including impacts on reproductive behaviours, orientation, predator-prey interaction, and competition among others, depending on the taxon and ecosystem in question (Longcore and Rich 2004). It is considered by Hölker *et al.* (2010) to be a key biodiversity threat to biodiversity conservation. In relation to bats, the potential impacts of artificial night lighting can result in habitat fragmentation (Hanski, 1998), delay in roost emergence (Downs *et al.*, 2003) and a reduction in prey items. In relation to the proposed development site, there is street lighting associated with the surrounding housing estates and there is also street lighting within the proposed development site associated with buildings and pedestrian paths. As a consequence, the proposed development site has a low potential for local bat populations.

Birds

Field Survey Results

The results of the bird survey of the site are presented in the accompanying bird report (Hugh Delaney, 2024). The main findings of this report are included below in Tables 4 & 5. The current conservation status of the birds is also given, where green status is of low conservation concern, amber is of medium concern and red is of high concern (Gilbert *et al.*, 2021).

Table 4 – Summary of Bird Species Recorded in the Site

Species	BoCCI Conservation Status	Additional Notes
Black-headed Gull	Red	<i>Small Number of Individuals Foraging in the Site Occasionally</i>
Blue Tit	Green	
Chaffinch	Green	<i>Foraging in Site</i>
Collared Dove	Green	
Common Gull	Amber	<i>Passing Over Site</i>
Feral Pigeon	Green	
Goldfinch	Green	<i>Foraging in Site</i>
Greenfinch	Green	<i>Recorded in Trees at the Boundary</i>
Herring Gull	Amber	<i>Passing Over Site only, no feeding on site</i>
Hooded Crow	Green	<i>Foraging in Site</i>
House Sparrow	Amber	<i>Present at western boundary of the Site</i>
Jackdaw	Green	<i>Foraging in Site</i>
Lesser Black Backed Gull	Amber	<i>Pased Over Site</i>
Linnet	Amber	<i>Foraging in Site</i>
Long-tailed Tit	Green	
Magpie.	Green	
Meadow Pipit	Red	<i>Passing Over Site</i>
Mistle Thrush	Green	<i>Foraging in Site</i>
Pied Wagtail	Green	<i>Foraging in Site</i>
Ravan	Green	<i>Past over site</i>
Rook	Green	<i>Foraging throughout Site</i>
Starling	Amber	<i>Foraging in Site</i>
Woodpigeon	Green	

Table 5 – Birds Recorded on Each Date throughout the Survey

Survey Date	Species Recorded Within / Over / Adjacent to the Site
January 18 th 2024	Black-headed Gull, Herring Gull, Feral Dove, Collared Dove, Pied Wagtail, Blue Tit, Long-tailed Tit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet.
January 24 th 2024	Black-headed Gull, Herring Gull, Feral Dove, Woodpigeon, Pied Wagtail, Blue Tit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet, Goldfinch.
January 30 th 2024	Black-headed Gull, Herring Gull, Common Gull, Feral Dove, Woodpigeon, Collared Dove, Pied Wagtail, Meadow Pipit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet, Goldfinch, Chaffinch.
February 9 th 2024	Black-headed Gull, Herring Gull, Feral Dove, Woodpigeon, Pied Wagtail, Meadow Pipit, Mistle Thrush, Magpie, Jackdaw, Rook, Hooded Crow, Raven, Starling, House Sparrow, Linnet, Goldfinch, Greenfinch.
February 20 th 2024	Black-headed Gull, Herring Gull, Lesser black-backed Gull, Sparrowhawk, Feral Dove, Woodpigeon, Pied Wagtail, Meadow Pipit, Mistle Thrush, Magpie, Jackdaw, Rook, Hooded Crow,, Starling, House Sparrow, Linnet, Goldfinch.

Bird Summary and Evaluation - In total 24 bird species were recorded at the Samuel Beckett Civic Campus site during 5 surveys in January-February 2024. Species recorded that are amber listed as a wintering species of conservation concern (Birdwatch Ireland's birds of conservation concern in Ireland 2020-2026) that were recorded on-site were two gull species recorded foraging on-site, namely Black-headed Gull and Herring Gull, and these were recorded foraging in small numbers with maximum counts in single figures only. Brent Geese and wader species were not noted recorded during the surveys and no Brent Geese goose scat was found on-site, and none were recorded passing over the site, suggesting the site is not a wintering foraging area for the species.

Results suggest that the site is not a significant ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's). A selection of some passerines typical of parkland in suburban Dublin were recorded and remained consistent throughout the surveys.

4.5 Aquatic Environment

The application site lies within the Ovoca-Vartry Hydrometric Area (10) and Catchment (10), the Dargle Sub-Catchment (010) and the Carrickmines Stream Sub-Basin (040). There are no watercourses within or adjacent to the application site. The Carrickmines River is ~208m north of the site and the Barnacullia Stream is ~232m south of the site. The Carrickmines River is largely culverted as it flows close to the M50 and through the sub-urban lands near Leopardstown. These streams merge near Carrickmines and this river continues to flow east / south-east until its confluence with the Shanganagh River near Cherrywood. The Shanganagh River flows east and it flows into Dublin Bay near Shanganagh (where there are no Natura 2000 designations).

The EPA have classified the ecological status of the Barnacullia Stream and the Carrickmines River as good status. The Shanganagh River has also been classed as good status. Under the requirements of the Water Framework Directive, this is satisfactory and this status must be maintained.

The site is within the Wicklow Groundwater Body and the current status of this is noted to be good. Groundwater vulnerability throughout the site is noted to be high.

4.6 Ecological Evaluation

Summary of the Value of the Application Site

The site at Ballyogen is within 15km of fifteen sites designated under the Natura 2000 network. There is no connectivity (source-pathway-receptor linkage) between the application site and any SAC / SPA. A screening report was completed for this proposed development as required under Article 6 (3) of the Habitats Directive. This report concluded that the proposed development would not have any impacts upon any site designated under the Natura 2000 network.

The site is also within 15km of six sites designated as Natural Heritage Areas (NHAs and pNHAs). There is no connectivity (source-pathway-receptor linkage) between the application site and any pNHA / NHA.

Within the application site itself, the habitats are dominated by Amenity Grasslands and Buildings And Artificial Surfaces. The habitats within the site are considered to be of low ecological value.

The site is not considered to be of high value to terrestrial mammals, bats, or birds, including wintering waders.

There are no watercourses on the site.

Overall, the ecological and biodiversity value of the site is considered to be low.

5.0 Potential Impacts

5.1 Introduction

The identification of potential impacts and the assessment of their significance typically requires the identification of the type and magnitude of the impacts. For example, will the impacts be short term or long term, direct, indirect, or cumulative and will they occur during construction or operation of the development. This section will establish whether ecological impacts of the proposed development at Ballyogen are likely to occur and whether or not they are significant. These potential impacts will be examined with respect to the ecological receptors identified in the previous section.

5.2 Impacts upon Designated Sites

The Appropriate Assessment Screening report submitted concluded that the proposed development at Ballyogen will have no direct, indirect, or cumulative impacts upon any site designated as a Special Area of Conservation or Special Protection Area. It is also considered unlikely that the proposed development will have any impacts upon sites designated as a proposed Natural Heritage Area. There will be no impacts upon these sites, their habitats or species arising from habitat loss or habitat fragmentation.

5.3 Impacts within the Application Site

5.3.1 Development Phase

The following developmental impacts upon the ecological receptors in the site have been considered below.

Habitats and Flora

The majority of the construction works will take place in the southern section of the site, in areas dominated currently by Buildings and Artificial Surfaces. The "Multi-Use Games Area" will be constructed on an area of Amenity Grassland, but the loss of this habitat is not considered to be significant.

Mammals (Terrestrial)

The site is not considered to be of high value to mammals. No impacts upon any protected terrestrial mammal species are anticipated during the construction phase of this project.

Bats

There will be no loss or destruction of any building or mature tree used by bats. Having regards to the urban nature of the site, its overall ecological value for bats is likely to be low and significant effects upon bats arising from the construction of the proposed development will not arise.

Birds

The existing grassland pitches within the site will remain unchanged. No significant effects upon wintering or breeding birds are anticipated.

Water Quality

There are no watercourses on site, and pollution to surface water during construction will not arise.

5.3.2 Operational Phase

Habitats and Flora

No operational negative effects anticipated.

The additional landscaping of the site to include nature-based solutions for surface water management offers ample opportunity for biodiversity enhancements within the site. Nature based solutions will offer a positive benefit for ecology and biodiversity within the site.

Mammals (Terrestrial)

The site is not considered to be of high value to mammals. No impacts upon any protected terrestrial mammal species are anticipated during the operation of the site.

Bats

An increase in the baseline level of lighting during the operational phase of the project could give rise to negative effects upon light sensitive bat species that commute or forage within the site. However, the overall increased level of lighting from existing levels associated with the new buildings will not be significant in the urban context of the site.

Birds

The existing playing pitches will be retained and the operation of the site will not give rise to any additional impacts on the birds that might use the site for foraging.

Water Quality

No negative effects upon water quality arising during the operation of the site will arise. Surface water management from the site will be managed with enhanced Nature Based Solutions and the existing attenuation area in the north-eastern section of the site will be upgraded.

6.0 MITIGATION MEASURES

The predicted ecological impacts arising from the proposed development are low and significant effects on the biodiversity of the site are not anticipated. Nonetheless, the following best practice measures are recommended during the construction and operation of the proposed development. This will prevent run-off from works entering local drainage gullies and sewers.

Pre-Construction

- All works associated with the development should be confined to the proposed development site and be done in full accordance with the plans and information submitted.
- The work areas must be kept to the minimum area required to carry out the proposed works and the area should be clearly marked out and cordoned off in advance of work commencement.

General Pollution Control

- Works must not take place in periods of heavy precipitation.
- Best practice in bulk-liquid concrete management must be employed addressing pouring and handling, secure shuttering, adequate curing times etc.
- Washwater from cleaning ready-mix concrete wagons and mixers may be contaminated. Wagons and mixers must be washed off site.
- Raw or uncured waste concrete should be disposed of by removal from the site in a manner that shall not impact on any watercourse.
- All fuels, lubricants and hydraulic fluids should be kept in secure bunded areas. The bunded area should accommodate 110% of the total capacity of the containers within it. Containers should be properly secured to prevent unauthorised access and misuse.
- All refuelling and lubrication of equipment should take place on sealed and bunded surfaces to avoid the potential for accidental spillage of hydrocarbons.
- An effective spillage procedure should be put in place with all staff properly briefed
- Spill kits should be present in all plant machinery.
- Oil booms and oil soakage pads should be kept on site to deal with any accidental spillage.
- Any waste oils or hydraulic fluids should be collected, stored in appropriate containers, and disposed of offsite in an appropriate manner.
- All plant and machinery should be regularly maintained and serviced to minimise release of hydrocarbons.
- All waste associated with the development should be disposed of in an environmentally friendly manner. Registered contractors should only be used. This includes any excavated soil.

Lighting

- Mammal friendly lighting should be employed on site to reduce impacts upon nocturnal species, including bats. The recommendations outlined in the guidance "Bats and Lighting Guidance Notes for: Planners, Engineers, Architects and Developers" should be followed. See https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines_Lighting.pdf. Luminaire design is extremely important to achieve an appropriate lighting regime. Luminaires come in a myriad of different styles, applications, and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires any new lighting within the site, and existing lighting should be upgraded to these specifications. This is taken from the most recent BCT Lighting Guidelines (BCT, 2023).
 - All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.

- LED luminaires should be used where possible due to their sharp-cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700 Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats. [Definition: Red Light refers to the light sources in the red spectrum and mainly consist of long wavelength light above 600nm with an RA value of 60 (for good colour recognition). This wavelength of light is considered to have the least impact on bats.]
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimised upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security light should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow (e.g. 1-2 minute timer).
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for the local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

Biodiversity Enhancement and Landscaping

- If there is an opportunity to install a bat box scheme (summer woodcrete bat boxes on poles), these could be located in the potential biodiversity area in the north-eastern corner of the proposed development site.
- A detailed landscaping plan should be prepared for the entire site and the overall aim of the landscaping plan should be to promote biodiversity net gain within the site, with the use of suitable native and / or non-native pollinator friendly plants. Planting guidelines within the All-Ireland Pollinator Plan 2021-2025 should be followed.
- Nature Based Solutions for surface water management within the site should be incorporated, e.g., green roofs, tree pits, swales etc.
- Any additional landscaping or planting on the site should focus primarily on native Irish species. Species that additionally provide benefits to local pollinators should also be included. Areas of the site should be managed for pollinators and wildflower areas should be encouraged. This can be done by cutting at the end of the summer season and removing the grass clippings from the area to compost elsewhere.

- The perimeters of the site should be planted with a mixture of native hedgerow species, and groups of larger trees should also be incorporated around the site.
- The existing attenuation area offers ample opportunity to increase biodiversity in the site. At the moment, this area lies unmanaged and the grassland habitat within it is becoming rank. The area is also attracting rubbish dumping.
- If the surface water proposals for the site result in the creation of an attenuation pond in this area, then the morphology of the pond should allow for shallow edges and stones to allow for easier use of the pond by frogs and newts should they happen to colonise. Suitable aquatic plants and marginal vegetation should be included in a planting scheme for this pond. The drier margins of the pond and the remaining area of this corner should then be managed to maximise habitat for pollinators, i.e., no fertilization, cutting annually in late summer and removing the cuttings for composting after 2 days.

7.0 RESIDUAL IMPACTS AND CONCLUSIONS

With the recommended mitigation measures, it can be concluded that the proposed development at the Samuel Beckett Civic Amenity Centre, Ballyogan, Dublin will have a neutral to positive impact upon local ecological receptors. The creation of new habitats on the site will be a positive benefit to local ecology and with proper management of the site and its green areas, local areas of biodiversity will be allowed to develop.

8.0 REFERENCES

Bowers Marriott, B. (1997) *Practical Guide to Environmental Impact Assessment: A Practical Guide*. Published by McGraw-Hill Professional, 1997, 320 pp.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland*.

Department of the Environment, Heritage, and Local Government (2009) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*.

Dún Laoghaire-Rathdown Biodiversity Action Plan 2021-2025 (2021)

Dún Laoghaire-Rathdown County Development Plan 2022-2028 (2022)

Dún Laoghaire-Rathdown Heritage Plan 2021-2025 (2021)

Dwyer, (2000) *Protecting Nature in Ireland, The NGO Special Areas of Conservation Shadow List*. Published by the Irish Peatland Conservation Council, Westmeath.

EPA (2001) *Parameters of Water Quality - Interpretation and Standards*. Environmental Protection Agency, Ireland.

EPA (2002) *Guidelines on the Information to be contained in Environmental Impact Statements*. Environmental Protection Agency, Ireland.

EPA (2003) *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements*. EPA, Wexford, Ireland.

Fossit, J.A. (2000) *A Guide to Habitats in Ireland*. The Heritage Council, Kilkenny.

Gilbert, Gillian & Stanbury, Andrew & Lewis, Lesley. (2021). *Birds of Conservation Concern in Ireland 4:2020-2026*. 43. 1-22.

Hayden, T. & Harrington, R. (2000) *Exploring Irish Mammals*. Dúchas the Heritage Service, Town House Westmeath.

Institute of Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. Institute of Environmental Assessment, Great Britain.

IUCN (2003) *Red List of Threatened Species*. International Council for Conservation of Nature and Natural Resources.

Marnell, F., Kelleher, C. & Mullen, E. (2022) *Bat mitigation guidelines for Ireland v2*. Irish Wildlife Manuals, No.134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

Natura Environmental Consultants (2005) *Draft Habitat Survey Guidelines: A Standard Methodology for Habitat Survey and Mapping in Ireland*. The Heritage Council, Kilkenny.

NPWS (2008) *Conservation Status in Ireland of Habitats and Species listed in the European Council Directive on the Conservation of Habitats, Flora, and Fauna 92/43/EEC*

NRA (2004) *Guidelines for Assessment of Ecological Impacts of National Road Schemes*. National Roads Authority, Westmeath.

Sargent, G. and Morris, Pat. (2003) *How to find and identify mammals*. The Mammal Society, Somerset.

Smith G. F., O'Donoghue P., O'Hora K., and Delaney E. (2010.) *Best Practice Guidance for Habitat Survey and Mapping*. Heritage Council.

Whilde, A. (1993) *Threatened Mammals, Birds, Amphibians and Fish in Ireland*. Irish Red Data Book 2: Vertebrates. HMSO, Belfast.

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APPENDIX A – PHOTOGRAPHS





Amenity Grassland / Pitch within the Site



Amenity Grassland / Gravel Pathway



All Weather Area (Location of Proposed New Building)



Existing Paths and Buildings



Existing Attenuation Area

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APPENDIX B – BAT ASSESSMENT



2024

LETTER: Samuel Beckett Civic
Campus, Ballyogan, Co. Dublin



Dr Tina Aughney
Bat Eco Services

Bat Eco Services, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. A82 XW62.

Licensed Bat Specialist: Dr Tina Aughney (tina@batecoservices.com, 086 4049468)
NPWS licence C17/2023 (Licence to handle bats, expires 23rd January 2026);
NPWS licence 27/2023 (Licence to photograph/film bats, expires 31st December 2024);
NPWS licence DER/BAT 2022-36 (Survey licence, expires 24th March 2025).

Statement of Authority: Dr Aughney has worked as a Bat Specialist since 2000 and has undertaken extensive survey work for all Irish bat species including large scale development projects, road schemes, residential developments, wind farm developments and smaller projects in relation to building renovation or habitat enhancement. She is a monitoring co-ordinator and trainer for Bat Conservation Ireland. She is a co-author of the 2014 publication *Irish Bats in the 21st Century*. This book received the 2015 CIEEM award for Information Sharing. Dr Aughney is a contributing author for the Atlas of Mammals in Ireland 2010-2015.

All analysis and reporting is completed by Dr Tina Aughney. Data collected and surveying is completed with the assistance of a trained field assistant.

Mr. Shaun Boyle (Field Assistant) NPWS licence DER/BAT 2022-37 (Survey licence, expires 24th March 2025).

To whom it may concern:

Bat Eco Services was requested by Traynor Environmental to survey Samuel Beckett Civic Campus, Ballyogan, Co. Dublin. This was surveyed to determine if the location has bat roosting, commuting and foraging potential. A site visit was undertaken on 20th January 2024.

This is primarily a green space site in an urban setting. In order to provide commuting and foraging habitat for local bat populations, tall linear habitat vegetation is important. Within the proposed development site, there are individual trees located along the boundary but they have limited potential for local bat populations.

While bats can roost in a wide array of buildings, the usage of such buildings is influenced by the surroundings and whether bats are likely to be commuting and foraging in vicinity of such. As a result of the limited tall vegetation (a total of 53 individual trees spaced out along 3 boundaries) the roosting potential is greatly reduced.

In addition, bats are a nocturnal mammal and therefore Artificial Lighting at Night (ALAN) can have a negative impact on local bat populations. Light levels as low as typical full moon levels, i.e. around 0.1 LUX, can alter the flight activity of bats (Voigt *et al.* 2018). Any level of artificial light above that of moonlight can mask the natural rhythms of lunar sky brightness and, thus, can disrupt patterns of foraging and mating and might, for instance, interfere with entrainment of the circadian system.

Artificial light pollution is an increasing global problem (Rich and Longcore, 2006) and Artificial light at night (ALAN) is considered a major threat to biodiversity, especially to nocturnal species. As urbanisation expands into the landscape, the degree of street lighting also expands. Its ecological impacts can have a profound effect on the behaviour of nocturnal animals including impacts on reproductive behaviours, orientation, predator-prey interaction and competition among others, depending on the taxon and ecosystem in question (Longcore and Rich 2004). It is considered by Hölker *et al.* (2010) to be a key biodiversity threat to biodiversity conservation. In relation to bats, the potential impacts of artificial night lighting can result in habitat fragmentation (Hanski, 1998), delay in roost emergence (Downs *et al.*, 2003) and a reduction in prey items.

In relation to the proposed development site, there is street lighting associated with the surrounding housing estates and there is also street lighting within the proposed development site associated with buildings and pedestrian paths. As a consequence, the proposed development site has a low potential for local bat populations.

However, there is always an opportunity to reduce the negative impact and propose biodiversity measures to assist bat movement through the landscape, particularly, common bat species that can tolerate a certain degree of street lighting (e.g. Leisler's bat, common pipistrelle and soprano pipistrelle). The author has surveyed the Carrickmines area and bats are present in the landscape.

There is a rough area of vegetation in north-eastern corner of the proposed development site. Biodiversity conservation measures could be undertaken in this area. In addition, greater tree planting along the boundaries should also be undertaken to provide continuous vegetation cover. Planting native deciduous trees is recommended.

If lighting is to be changed, it is an opportunity to ensure that lighting installed is more mammal friendly. This BCT (2018) guidelines provided a list of recommendations in relation to luminaire design, which was based on the extensive research completed at the time on the potential impact of

lighting on bats, and therefore provides best practice mitigation measures. These recommendations have been updated with the new BCT (2023) guidelines:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp-cut-off, lower intensity, good colour rendition and dimming capability,
- A warm white light source (2700 Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.

DEFINITION: Red Light refers to the light sources in the red spectrum and mainly consist of long wavelength light above 600nm with an RA value of 60 (for good colour recognition). This wavelength of light is considered to have the least impact on bats.

- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimised upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security light should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow (e.g. 1-2 minute timer).
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for the local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

If there is an opportunity to install a bat box scheme (summer woodcrete bat boxes on poles), these could be located in the potential biodiversity area in the north-eastern corner of the proposed development site.

If you require any further information, please do not hesitate to contact me.

Yours sincerely,

Dr Tina Aughney.

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APPENDIX C – MAMMAL SURVEY



2024

LETTER: Trail Cameras - Samuel
Beckett Civic Campus, Ballyogan,
Co. Dublin



Soprano pipistrelle

Tina Aughney 2016

Dr Tina Aughney
Bat Eco Services

Bat Eco Services, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. A82 XW62.

Licensed Bat Specialist: Dr Tina Aughney (tina@batecoservices.com, 086 4049468)
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All analysis and reporting is completed by Dr Tina Aughney. Data collected and surveying is completed with the assistance of a trained field assistant.

Mr. Shaun Boyle (Field Assistant) NPWS licence DER/BAT 2022-37 (Survey licence, expires 24th March 2025).

To whom it may concern:

Bat Eco Services was requested by Traynor Environmental to deploy trail cameras at the rough vegetation area in the north-eastern corner of the Samuel Beckett Civic Campus, Ballyogan, Co. Dublin. Three trail cameras were deployed on 2nd February 2024 and collected on 9th February 2024 (1 weeks deployment) in order to determine if there are any terrestrial mammals using the survey area.

1.1 Relevant Legislation & Terrestrial Mammals Status in Ireland

There are 27 terrestrial mammals species in Ireland, which includes the nine resident bat species listed above. The terrestrial mammal list for Ireland consists of all terrestrial species native to Ireland or naturalised in Ireland before 1500. The IUCN Red List categories and criteria are used to assess that status of wildlife. This was recently completed for the terrestrial mammals of Ireland. Apart from the two following two mammal species (grey wolf *Canis lupus* (regionally extinct) and black rat *Rattus rattus* (Vulnerable)), the remaining 25 species were assessed as least concern in the most recent IUCN Red List publication by NPWS (Marnell *et al.*, 2019). The terrestrial mammal species, known to be present in Ireland but were excluded from the assessment are listed in Table 1c.

Table 1a: Status of the Irish terrestrial mammal fauna (non-bat) (Marnell *et al.*, 2019).

Species: Common Name	Irish Status	Species: Common Name	Irish Status
Grey Wolf <i>Canis lupus</i>	Regionally extinct	Black rat <i>Rattus rattus</i>	Vulnerable
Hedgehog <i>Erinaceus europaeus</i>	Least Concern	Red fox <i>Vulpes vulpes</i>	Least Concern
Pygmy shrew <i>Sorex minutus</i>	Least Concern	Harbour seal <i>Phoca vitulina</i>	Least Concern
Wood mouse <i>Apodemus sylvaticus</i>	Least Concern	Grey seal <i>Halichoerus grypus</i>	Least Concern
House mouse <i>Mus musculus domesticus</i>	Least Concern	Irish hare <i>Lepus timidus hibernicus</i>	Least Concern
Red squirrel <i>Sciurus vulgaris</i>	Least Concern	Rabbit <i>Oryctolagus cuniculus</i>	Least Concern
Otter <i>Lutra lutra</i>	Least Concern	Red deer <i>Cervus elaphus</i>	Least Concern
Pine marten <i>Martes martes</i>	Least Concern	Fallow deer <i>Dama dama</i>	Least Concern
Irish stoat <i>Mustela ermine hibernica</i>	Least Concern	Badger <i>Meles meles</i>	Least Concern

Table 1b: Additional Irish terrestrial mammal fauna (non-bat) not assessed on the IUCN Red List (Marnell *et al.*, 2019).

Species: Common Name	Species: Common Name
Sika deer <i>Cervus Nippon</i>	American mink <i>Neovison vison</i>
Greater white-toothed shrew <i>Crocidura russula</i>	Brown rat <i>Rattus norvegicus</i>
Brown hare <i>Lepus europaeus</i>	Grey squirrel <i>Sciurus carolinensis</i>
Bank vole <i>Myodes glareolus</i>	Wild boar <i>Sus scrofa</i>

Muntjac deer <i>Muntiacus reevesi</i>	Hazel dormouse <i>Muscardinus avellanarius</i>
Coypu <i>Myocastor coypus</i>	

As stated by Marnell *et al.*, 2019, most terrestrial mammals have some legal protection in Ireland. Excluding bat species, 5 mammal species are listed on the EU Habitats Directive and 12 on Irish legislation. Mammal species with no legal protection are as follows: Wood mouse, House mouse, Black rat, Red fox and Rabbit.

Table 1c: Irish terrestrial mammal fauna (non-bat) protected status (Marnell *et al.*, 2019).

Irish Wildlife Act 1976, Wildlife (Amendment) Act 2000	EU Habitats Directive
Hedgehog <i>Erinaceus europaeus</i>	
Pygmy shrew <i>Sorex minutus</i>	
Red squirrel <i>Sciurus vulgaris</i>	
Otter <i>Lutra lutra</i>	Otter <i>Lutra lutra</i>
Pine marten <i>Martes martes</i>	Pine marten <i>Martes martes</i>
Irish stoat <i>Mustela ermine hibernica</i>	
Harbour seal <i>Phoca vitulina</i>	Harbour seal <i>Phoca vitulina</i>
Grey seal <i>Halichoerus grypus</i>	Grey seal <i>Halichoerus grypus</i>
Irish hare <i>Lepus timidus hibernicus</i>	Irish hare <i>Lepus timidus hibernicus</i>
Red deer <i>Cervus elaphus</i>	
Fallow deer <i>Dama dama</i>	
Badger <i>Meles meles</i>	

1.2 Trial Cameras Methodology

Camera traps or trail cameras offer a non-invasive method of surveillance of terrestrial wildlife usage. Cameras provide proof of species presence in an area; can teach what prints and scats go with which species (especially when coupled with track pads); for some species allow photo-identification of individuals; estimate the abundance, density and relative abundance of animal populations; allow biodiversity estimation and are a cost effective long-term monitoring tool. However, external conditions (such as night-time, heavy rain or fog) often negatively affect the quality of recorded photographs/movies, and recognition of details may not be possible. In addition fast moving animals can be missed by the trail camera triggering.

Trail cameras were deployed in four survey periods and four camera types used were:

- 2 units of Maginon WK3HD Wildlife Camera with 3-zone motion sensor (Cameras A & B)
- 1 unit of Game/Surveillance WK8A1 Camera with 3-zone motion sensor (Camera 2)

The settings for each camera were as follows:

- Medium sensitivity
- Medium setting for IR light intensity
- Triggered by activity to take 3 consecutive photographs

- 1 minute delay post trigger event

Cameras were positioned between 15 and 30 cm off the ground and locked into place using Python Cable locks.

The three were located as shown on the map below:



Figure 1: Location of three trail cameras during surveillance.

Camera 2: ITM Grid reference – 720776,724614

Camera A: ITM Grid reference – 720797,724597

Camera B: ITM Grid reference – 720752,724618

1.3 Trail Camera Results

The following table presents the results of the trail camera surveillance. Only one species of terrestrial mammal was recorded: Red Fox. A minimum of two foxes (general size and markings) are considered to use the survey area.

Date	Time	Species	Activity
CAMERA 2			
2/2/2024	20:54 hrs	Red Fox	Traversing through survey area
	21:45 hrs	Red Fox	Traversing through survey area

	22:38 hrs	Red Fox	Traversing through survey area
	22:43 hrs	Red Fox	Traversing through survey area
	23:18 hrs	Red Fox	Traversing through survey area
3/2/2024	22:38 hrs	Red Fox	Traversing through survey area
4/2/2024	02:01 hrs	Red Fox	Traversing through survey area
	22:34 hrs	Red Fox	Traversing through survey area
7/4/2024	00:08 hrs	Red Fox	Traversing through survey area
	21:38 hrs	Red Fox	Traversing through survey area
	21:44 hrs	Red Fox	Traversing through survey area
CAMAER A			
3/2/2024	03:37 hrs	Red Fox	Traversing through survey area
CAMERA B			
4/2/2024	02:24 hrs	Red Fox	Traversing through survey area

1.3.1 Red fox

This species is common and widespread across Ireland (Looney, 2016). It is considered to be an extremely adaptable species in relation to habitat requirements generalist species and therefore found in a wide array of habitats. The Red fox form monogamous pairs to small family groups (one dog fox and several related vixens, which apart from the dominant female, do not breed). It is an omnivore with a wide ranging diet. Some foxes are resident in an area while others are highly nomadic. The fox population is considered to be relatively stable in Ireland.

The fox digs an underground home called an earth or den for shelter during poor weather (usually under hedgerows, in rock crevices or drains) but will live above ground in good weather (Browne, 2005). Breeding usually takes place over winter with cubs born in February and April. The vixen has one litter per year and the more successful adults usually live for four years.

Irish Status	Least Concern
European Status	Least Concern
Global Status	Least Concern

Taken from Lysaght & Marnell, 2016

Therefore it is important to ensure that Red foxes can continue to traverse safely through the proposed development site safely. Any sort of fencing proposed must allow mammals to continue to access the site and not become “trapped” along an impenetrable fence line. As per bat guidelines, measures relating to outdoor lighting also applied. Additional planting (landscaping) will also benefit Red fox movement and, in general, increase biodiversity benefits, particularly if such planting is native tree and shrub species.

If you require any further information, please do not hesitate to contact me.

Yours sincerely,

Dr Tina Aughney.

2. Bibliography

EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992.

Looney, D. (2016) Red fox *Vulpes vulpes*. Pp. 91-92. In Lysaght, L. and Marnell, F. (eds) (2016) *Atlas of Mammals of Ireland 2010-2015*. National Biodiversity Data Centre, Waterford.

Lysaght, L. and Marnell, F. (eds) (2016) *Atlas of Mammals in Ireland 2010-2015*, National Biodiversity Data Centre, Waterford.

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

Marnell, F. (2016) Otter *Lutra lutra*. Pp. 97-98. In Lysaght, L. and Marnell, F. (eds) (2016) *Atlas of Mammals of Ireland 2010-2015*. National Biodiversity Data Centre, Waterford.

Sargent, G. and Morris, Pat. (2003) *How to find and identify mammals*. The Mammal Society, Sommerset.

Wildlife Act 1976 and Wildlife [Amendment] Act 2000. Government of Ireland.

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APPENDIX D – BIRD SURVEY



Samuel Beckett Civic Campus Ballyogan, Co Dublin, Winter Bird Surveys January-February 2024

Introduction

During January and February 2024, 5 winter bird surveys were undertaken at lands at Samuel Beckett Civic Campus, Ballyogan, County Dublin by Hugh Delaney, a freelance Ecologist (Birds primarily) having completed work on numerous sites with ecological consultancies over 10+ years. Hugh is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years.

Winter Bird Survey Methodology

Winter bird surveys are conducted from soon after sunrise until late in the afternoon, or alternatively started later in the day until sunset, surveying for a minimum of 6 hours, the site is monitored throughout the survey period and all bird species utilizing the site recorded, including species flying through overhead. Checks are also made on suitable habitat nearby or adjacent to the site for comparative purposes and to monitor any interchange of birds between sites. Target species (species of more special interest) utilizing the site are mapped and estimates of the time these species frequented the site recorded.

Site Location

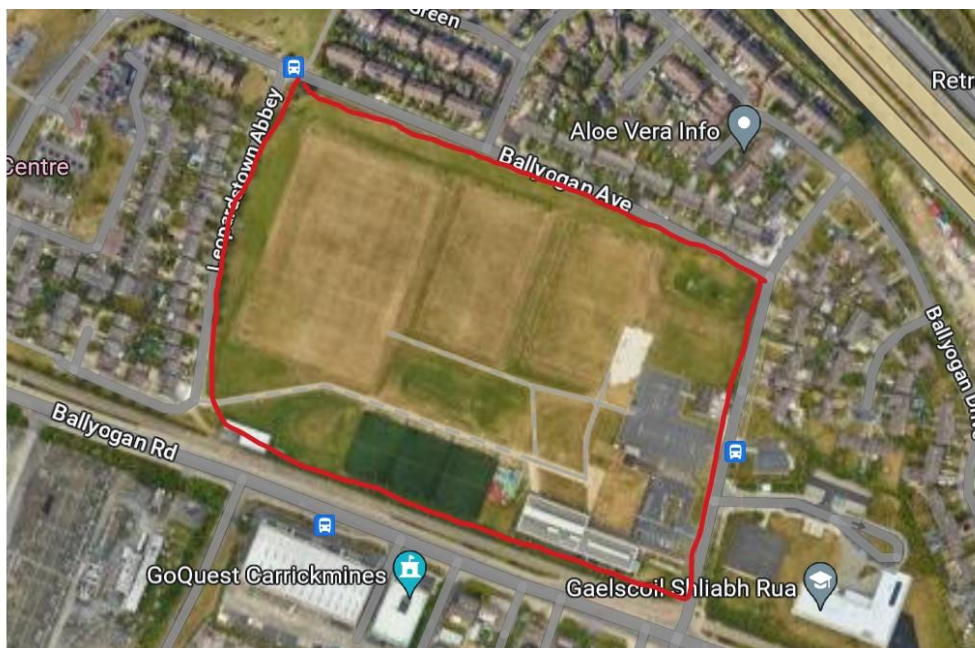


Fig. Samuel Beckett Civic Campus, Ballyogan, Co Dublin, outlined in red.

Site Description

A public amenity site with general public access, comprising largely of 3 maintained playing fields, the largest in the northwest corner, a smaller artificial surface playing area, playground and buildings and carpark comprising the remainder of the site at the south end. Trees border the site with the exception of the east side. The site is situated between the M50 and Luas Line is surrounded by suburban housing and a shopping complex to the north.

Specific site survey methodology

Site monitored throughout the survey, observing from the south side of the site mainly from a raised area just north of the artificial playing fields which provided an optimal vantage point with views over the site. Species recorded foraging on-site were documented hourly during the surveys. Playing areas were checked each survey for evidence of Brent Geese scat.

January 18th, 2024

Sunrise- 08.30hrs/Sunset 16.41hrs. Weather – Wind F2 West, Cloud 1/8, Dry, 1c, Excellent visibility.
On-site 10.00hrs – 16.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Feral Dove, Collared Dove, Pied Wagtail, Blue Tit, Long-tailed Tit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet.

10.00hrs-12.00hrs – A single Black-headed Gull noted foraging at the east playing field from 11.20-11.40hrs. Herring Gull (<8) noted flying over the site, not observed foraging on-site. Hooded Crow (maximum of 5) and Rook (maximum of 4) noted foraging around the site throughout. Starling (<60) noted foraging at the east side of the site at 11.00hrs. Linnet (<3) foraging at the northwest corner at 11.50hrs. Playing fields checked for evidence of Brent Goose scat, none were located.

12.00hrs-16.15hrs – Herring Gull (<10) again noted flying over site, intermittently landing on houses adjacent the site, none observed foraging on-site. Jackdaw (<2), Hooded Crow (<3) and Rook (<4) noted foraging on-site throughout. Pied Wagtail (<1) foraging at east side of site from 12.30-13.10hrs. No other target species recorded.

January 24th, 2024

Sunrise- 08.22hrs/Sunset 16.52hrs. Weather – Wind F2 Southwest, Cloud 6/8, Dry, 6c, Excellent visibility. On-site 08.15hrs – 14.15hrs.

Species recorded – Black-headed Gull, Herring Gull, Feral Dove, Woodpigeon, Pied Wagtail, Blue Tit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet, Goldfinch.

08.15hrs-12.00hrs – Herring Gull (<2) noted foraging at the west playing field from 08.40-09.10hrs, with small numbers (<8) noted flying over site intermittently during morning. Minimum of 2 Black-headed Gull noted foraging intermittently for short periods on-site with occasional single birds observed passing over the site. Hooded Crow (maximum of 6) and Rook (maximum of 5) noted foraging around the site throughout. Starling (<120) noted foraging at the northeast corner of the site at intervals during the morning. Linnet (<6) and Goldfinch (<2) noted foraging at the east side of the site. Playing fields checked for evidence of Brent Goose scat, none were located.

12.00hrs-14.15hrs – Black-headed Gull (<3) noted foraging from 12.35-13.15 at the west playing fields, Herring Gull (<15) noted passing over the site only, none observed foraging on-site. Jackdaw (<6), Hooded Crow (<4) and Rook (<3) noted foraging on-site throughout. Blue Tit (<2) and Goldfinch (<5) recorded in trees at the south boundary. No other target species recorded.

January 30th, 2024

Sunrise- 08.13hrs/Sunset 17.03hrs. Weather – Wind F2 West, Cloud 3/8, Dry, 2c, Excellent visibility.
On-site 10.30hrs – 16.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Common Gull, Feral Dove, Woodpigeon, Collared Dove, Pied Wagtail, Meadow Pipit, Magpie, Jackdaw, Rook, Hooded Crow, Starling, House Sparrow, Linnet, Goldfinch, Chaffinch.

10.30hrs-12.00hrs – Herring Gull (<1) noted foraging at the central playing field from 11.05-11.15hrs, with small numbers (<12) noted flying over site intermittently during morning, Common Gull (<2) passed over site east at 11.45hrs. Black-headed Gull (<2) foraging at the east playing field from 11.27-11.45hrs. Jackdaw (<7), Hooded Crow (maximum of 4) and Rook (maximum of 6) noted foraging around the site throughout. Linnet (<2), Chaffinch (<1) and Goldfinch (<4) noted foraging in tree boundary at the east and west side of the site. Playing fields checked for evidence of Brent Goose scat, none were located.

12.00hrs-16.30hrs – Black-headed Gull (<2) noted foraging from 12.55-13.45 and 14.05-14.25 at the west playing field, Herring Gull (<1) noted foraging at the east playing field from 15.10-15.25 with minimum of 15 noted passing over the site. Jackdaw (<8), Hooded Crow (<6) and Rook (<4) noted foraging on-site throughout. Meadow Pipit (<1) passed north over site at 14.10hrs. Linnet (<4) and Goldfinch (<2) recorded in trees at the south boundary. No other target species recorded.

February 9th, 2024

Sunrise- 07.56hrs/Sunset 17.22hrs. Weather – Wind F2 East, Cloud 7/8, Intermittent light showers, 5c, Excellent visibility. On-site 11.00hrs – 17.00hrs.

Species recorded – Black-headed Gull, Herring Gull, Feral Dove, Woodpigeon, Pied Wagtail, Meadow Pipit, Mistle Thrush, Magpie, Jackdaw, Rook, Hooded Crow, Raven, Starling, House Sparrow, Linnet, Goldfinch, Greenfinch.

11.00hrs-12.00hrs – Herring Gull (<4) and Black-headed Gull (<3) noted foraging at the west playing field from 11.40-12.25hrs, with small numbers (Herring <10 and Black-headed Gull <5) noted flying over site intermittently during morning. Black-headed Gull (<1) foraging at the east playing field from 11.52-13.10hrs. Jackdaw (<4), Hooded Crow (maximum of 6) and Rook (maximum of 8) noted foraging around the site throughout. Goldfinch (<4) noted foraging in tree boundary at the east side of site. Playing fields checked for evidence of Brent Goose scat, none were located.

12.00hrs-17.00hrs – Herring Gull (<up to 3) noted foraging on the playing fields intermittently throughout the afternoon, Black-headed Gull (<1) noted foraging from 13.35-14.10 at the west playing field, and 4 noted foraging at the east playing field from 14.39- 16.10hrs. Small numbers of gulls also noted passing over the site. Jackdaw (<5), Hooded Crow (<5), Magpie (<1) and Rook (<6) noted foraging on-site throughout. Goldfinch (<2) and Greenfinch (<1) recorded in trees at the south boundary. Mistle Thrush (<2) noted on west side of site at 14.30hrs foraging. Raven (<2) passed west over the site at 15.15hrs. No other target species recorded.

February 20th, 2024

Sunrise- 07.33hrs/Sunset 17.44hrs. Weather – Wind F2 Southwest, Cloud 4/8, Dry, 9c, Excellent visibility. On-site 07.30hrs – 13.30hrs.

Species recorded – Black-headed Gull, Herring Gull, Lesser black-backed Gull, Sparrowhawk, Feral Dove, Woodpigeon, Pied Wagtail, Meadow Pipit, Mistle Thrush, Magpie, Jackdaw, Rook, Hooded Crow,, Starling, House Sparrow, Linnet, Goldfinch.

07.30hrs-12.00hrs – Herring Gull (<3) noted foraging at the west and central playing field from 08.30-09.45hrs, with small numbers (Herring <15 and Black-headed Gull <5) noted flying over site intermittently during morning. Lesser black-backed Gull (<2) passed north over the site at 10.55hrs. Black-headed Gull (<2) foraging at the central playing field from 10.02-10.35hrs and 10.50-11.22hrs. Jackdaw (<2), Hooded Crow (maximum of 3) and Rook (maximum of 6) noted foraging around the site throughout. Linnet (<6) noted foraging in tree boundary at the east side of site. Sparrowhawk (<1) passed north over site at 09.52hrs. Playing fields checked for evidence of Brent Goose scat, none were located.

12.00hrs-13.30hrs – Herring Gull (<2 foraging at the west and central playing field from 12.25-12.50hrs and Black-headed Gull (<1) noted foraging on the east playing field from 12.15-12.35hrs. Small numbers of gulls also noted passing over the site. Jackdaw (<4), Hooded Crow (<5), Magpie (<2) and Rook (<6) noted foraging on-site throughout. Goldfinch (<2), Blue Tit (<1) and Long-tailed Tit (<3) recorded in trees at the south boundary. No other target species recorded.

Comments and observations on survey results

In total 24 Bird species were recorded at the Samuel Beckett Civic Campus site during 5 surveys in January-February 2024. Species recorded that are amber listed as a wintering species of conservation concern (Birdwatch Ireland's birds of conservation concern in Ireland 2020-2026) that were recorded on-site were two Gull species recorded foraging on-site, namely Black-headed Gull and Herring Gull, these were recorded foraging in small numbers with maximum counts in single figures only. Brent Geese and wader species were not noted recorded during the surveys and no Brent Geese goose scat was found on-site, and none were recorded passing over the site, suggesting the site is not a wintering foraging area for the species.

Results suggest that the site is not a significant ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's). A selection of some passerines typical of parkland in suburban Dublin were recorded and remained consistent throughout the surveys.