Residential Development Hartfield Place, Swords Road, Dublin

AA Screening

Final

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Contract

This report describes work commissioned by Órla Canavan of Corcom on behalf of EW Property Ltd by an instruction dated 24/01/2024. The Client's representative for the contract is Orla Canavan. Michael Coyle and Jai Dolan of JBA Consulting carried out this work.

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Abbreviations

AA	Appropriate Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
CJEU	Court of Justice of the European Union
DEHLG	Department of Environment, Heritage and Local Government
DHPLG	Department of Housing, Planning and Local Government
EC	European Communities
ECJ	European Court Judgement
EPA	Environmental Protection Agency
GIS	Geographic Information Systems
GSI	Geological Survey Ireland
IAQM	Institute of Air Quality Management
INNS	Invasive Non-Native Species
IROPI	Imperative Reasons of Over-riding Public Interest
I-WeBS	Irish Wetland Bird Survey
KDE	Kernal Density Estimates
LSE	Likely Significant Effect
NBDC	National Biodiversity Data Centre
NDDS	North Dublin Drainage System
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Services
NRA	National Riads Authority
OPW	Office of Public Works
OPR	Office of the Planning Regulator
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SCI	Special Conservation Interest
SHD	Strategic Housing Development
SPA	Special Protection Area
SUDS	Sustainable Drainage System
WFD	Water Framework Directive
WWTP	Wastewater Treatment Plant

ZoI	Zone of Influence

1 Introduction

1.1 Background

This report, which contains information to assist the competent authority to undertake a screening for Appropriate Assessment (AA) in respect of an amendment to the permitted Strategic Housing Development [SHD Reg Ref 313289-22] at Swords Road, Whitehall, Dublin 9, has been prepared by JBA Consulting Engineers and Scientists Ltd. (hereafter JBA) on behalf of EW Property Ltd. It provides information on, and assesses the potential in view of best scientific knowledge for the Largescale Residential Development proposed amendment to the permitted Strategic Housing Development (SHD) at Swords Road to have likely significant effects, either individually or in combination with other plans or projects, on any Natura 2000 site.

This AA Screening will assess the LRD Application for amendments to permitted development ABP 313289-22 for Apartments, Creche and Associated Works at a site at 'Hartfield Place', Swords Road, Whitehall, Co. Dublin. The proposed amendments include the replacement of the permitted basement with a semi-basement under blocks D, E and part of the communal open space. The amendments will result in a change in height to all blocks, alteration to and reduction of the number of car parking spaces on site, alteration to the cycle parking locations, and changes to the open space layout. Amendments to the internal layout of Blocks A, B, C, D & E resulting in the increase in the total number of units by 29 units, with an overall total of 334 units.

Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (the "Habitats Directive") requires that, any plan or project not directly connected with or necessary to the management of European sites, but likely to have significant effects thereon, either individually or in combination with other plans or projects, shall be subject to AA of its implications for the European sites in view of their conservation objectives. The requirements of Article 6(3) of the Habitats Directive have been transposed into Irish law by Part XAB of the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).

1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment:

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

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in such a case.

Article 6(4) states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission to other imperative reasons of overriding public interest."

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of inter alia the European Communities (Birds and Natural Habitats) Regulations 2011-2015 (S.I. No. 477 / 2011) as amended.

1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the NPWS and Planning Divisions of the Department of Environment, Heritage and Local Government (DEHLG) (DEHLG, 2009, rev 2010). Office of the Planning Regulator (OPR) produced a Practice Note in 2021, PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021). These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

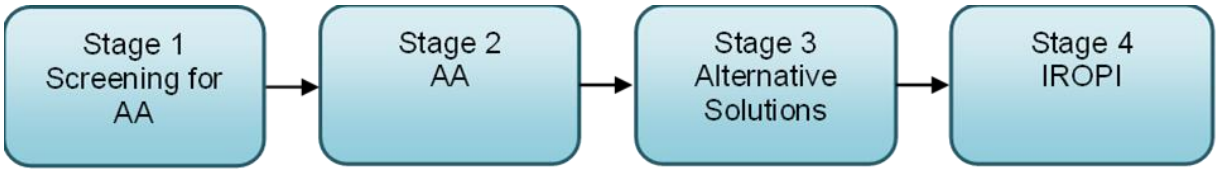

Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DEHLG, 2009)

1.3.1 Stage 1 – Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

- whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation (Natura 2000 site)
- if it is likely to have a significant effect on the European designated site, either individually or in combination with other plans or projects.

For those sites where, potential likely significant effects are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e., the process proceeds to Stage 2).

1.3.2 Stage 2 – AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in-combination with other plans and projects, taking into account the site's conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, then alternative solutions will need to be considered (i.e., the process proceeds to Stage 3).

1.3.3 Stage 3 – Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

1.3.4 Stage 4 – IROPI

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest (IROPI) can be demonstrated. In this case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant effects are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

1.3.5 Court of Justice of the European Union (CJEU) Rulings

The CJEU has been asked to issue rulings on development plans, which are used to inform this assessment.

The CJEU issued a ruling on the consideration of avoidance and reduction measures as a result of People over Wind, Peter Sweetman v Coillte Teoranta (C-323/17) [2018]. This judgement stated that measures intended to reduce or avoid effects on a Natura 2000 site should only be considered within the framework of an Appropriate Assessment, and it is not permissible to take into account such measures at the screening stage.

More recently, the decision of the CJEU in case C-721/21 (Eco Advocacy CLG v An Bord Pleanála), delivered in June 2023, found that Article 6(3) of the Habitats Directive must be interpreted as meaning that: “in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site.” (Para. 53(3) of the Judgement).

This recent judgement therefore clarifies that features which have been incorporated into a project as standard features, inherent in that project, and irrespective of any effect on any European site may be taken into account for the purposes of a Stage 1 Screening for Appropriate Assessment under Article 6(3) of the directive.

The CJEU ruling in Grace & Sweetman (C-164/17) [2018] clarified the difference between avoidance and reduction (mitigation) measures and compensation. Measures intended to compensate for the negative effects of a project cannot be taken into account in the assessment of the implications of a project, and instead are considered under Article 6(4). This means that any project where an effect on the integrity of a Natura 2000 site remains and can only be offset by compensation, would need to proceed under Article 6(4), demonstrating “imperative reasons of overriding public interest”.

The CJEU ruling in the case of Holohan v An Bord Pleanála (C-461/17) [2018] also clarified the importance in Appropriate Assessment of taking into account habitat types and species outside the boundary of the Natura 2000 site where implications of the impacts on those habitat and species may impact the conservation objectives of the Natura 2000 site. In this assessment functionally linked and supporting habitat for species outside of Natura 2000 sites are assessed where they could potentially impact the conservation objectives of any Natura 2000 sites within the zone of influence (ZoI).

The CJEU ruling in response to questions referred by the Irish High Court in the Eco Advocacy CLG Case (C-721/21) [2023] indicated that an applicant for permission in its AA screening report/and a decision maker in undertaking its AA screening can take into account "standard features", i.e. all the constituent elements of that project inherent in it/elements that are incorporated into a projects design not with the aim of reducing its negative effects (even where these have the effect of reducing harmful effects on a European site).

1.4 Methodology

The Screening for Appropriate Assessment has been prepared having regard to the Birds and Habitats Directives, the European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended and relevant jurisprudence of the EU and Irish courts. The following documents have also been used to provide guidance for the assessment:

- DoEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities, and DEHLG /NPWS Circular letters.
- EC (2019) Managing Natura 2000 sites — The provisions of Article 6 of the Habitats Directive 92/43/EEC' (2019) Official Journal of the European Union 33, 1-62. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XC0125(07)
- EC (2021) Commission notice Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01' (2021) Official Journal of the European Union 437, 1-107. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XC1028(02)
- Office of the Planning Regulator (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021).
  CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (Chartered Institute of Ecology and Environmental), (updated 2022)

1.4.1 Screening Methods

This screening assessment uses the source-pathway-receptor (S-P-R) model as outlined in guidance (OPR 2021). Using the source-pathway-receptor model allows for the potential significant effects to be eliminated if no viable source, pathway, or receptor is present.

The S-P-R method uses an examination of the construction methods or project description allows sources of impact to be determined. This also allows a zone of influence (ZoI) for the project to be generated based on the size, scale and nature of the works involved. The pathways for impact are also analysed to see if a functional pathway for impact is present. This report analyses three pathways: surface water, groundwater and land. Using information gathered from desk sources (e.g. mapped qualifying interests from the Conservation Objectives for the site) and from field surveys, receptors within the zone of influence are identified. In some cases, sensitive receptors may also play a role in determining the zone of influence. If any of the three parts to the model are not present (source-pathway-receptor) the potential for a likely significant effect from the project on the Natura 2000 network can be discounted.

1.4.2 Likely Significant Effect Test

The test for AA screening is whether the project could have a 'likely significant effect' on any Natura 2000 site. A likely significant effect is defined as any effect that could undermine the conservation objectives of a Natura 2000 site, either alone or in combination with other plans or projects. There must be a causal connection between the project and the qualifying interest of the site which could result in possible significant effects on the site. The likely significant effect test is a lower threshold for the screening assessment than 'adverse effect on site integrity' considered at Appropriate Assessment stage (Stage 2) as screening is intended to be a preliminary examination for potential effects.

The Zone of Influence was used to identify Natura 2000 sites that could be impacted by the project. For each of these sites, the Qualifying Interest features and their associated conservation objectives were identified, and the possibility of likely significant effect was determined by a combination of location, ecological and hydrological connectivity, sensitivity of receptor and magnitude of the source of impact.

1.4.3 Desktop Study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) web-based databases, to identify key habitats and species, including legally protected and species of conservation concern, that may be present within ecologically relevant distances from the project as explained below. A baseline habitat assessment was performed using satellite imagery of the site. The data sources below were consulted for the desktop study:

- Aerial photography available from www.osi.ie and ESRI World Imagery.
- NPWS website (www.npws.ie) where Natura 2000 site synopses, data forms and conservation objectives were obtained along with Annex 1 habitat distribution data and status reports.
- River Basin Management Plans
- NBDC Biodiversity Maps (maps.biodiversityireland.ie)
- Catchments (www.catchments.ie)
- Environmental Protection Agency Maps (https://gis.epa.ie/EPAMaps)
- Geological Survey Ireland (GSI) (www.gsi.ie)
- GSI - Groundwater data viewer (https://dcenr.maps.arcgis.com)
- Planning Applications (myplan.ie)

1.4.4 Ecological Site Survey

To inform the ecological baseline of this AA Screening report a general habitat walkover survey wasconducted on the 3rd July 2024 by JBA Ecologist Michael Coyle and Matt Hosking. The results of the survey can be found in Section 3.

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

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2009).

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

1.4.5 Winter Bird Surveys (Flight line and ground nesting surveys)

As part amending this AA Screening, a series of three updated flight line surveys for wintering birds were completed on the 30th January, 19th February and the 7th March 2024. Point counts for these flight line surveys were carried out from the north of the site at the neighbouring GAA pitch, watching the skyline for the passage of Light-Bellied Brent Goose *Branta bernicla hrota*, before carrying out a ground-roosting survey of wintering birds.

Survey methodology for the wintering bird surveys was adapted from the Irish Wetland Bird Survey (I-WeBS) methodology (BWI 2008). All birds recorded within the site boundaries were enumerated, identified to species, had their activities performed described, and flight paths entering or leaving the site noted where possible. Birds encountered during the wintering and bird surveys were recorded along with their level of conservation concern as per Gilbert et al (2021).

1.4.6 In-Combination Effects

In relation to the assessment of potential in-combination effects, where there is no effect at all via a pathway, there is no possibility of in-combination effects. Where potential likely significant effects are identified, the in-combination assessment is carried forwards to a Stage 2 Appropriate Assessment. Plans and projects that have the potential to have in-combination effects are listed in Section 5

1.5 Limitations and Constraints

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

- Information on the works and conditions on site are based on current knowledge at the time of writing. Changes to the site since surveys were undertaken cannot be accounted for. However, the site surveys have followed CIEEM (2019) Advice note on the lifespan of ecological reports and surveys.
- The precautionary principle is utilised when determining potential ecological sensitivities within the proposed developments ZoI.
- This assessment is based on the methodology for proposed works as described in this report. Where changes to methodology occur, an ecologist will need to be consulted to

determine if the changes are likely to alter the ecological impacts and would therefore need reassessment.

- Data from biological record centres or online databases is historical information, and datasets may be incomplete, inaccurate, or missing. The absence of records for an area may be due to the under recording in the area and not necessarily imply the absence of species. These records are therefore to be treated as minimum information available for the area.

2 Project Description

2.1 The Project

The proposed residential development (thereafter 'the proposed development') is not directly connected with or necessary to the management of any Natura 2000 site and may have potential likely significant effects upon the Natura 2000 sites identified in Section 4. Therefore, the proposed Project is subject to the requirements of the Appropriate Assessment process.

2.2 Site Location

The proposed development is located east of Swords Road in Whitehall, Co. Dublin. Dublin City University lies approximately 0.5km north-west of the development site and Clontarf Golf Club lies approximately 1.8km to the south-east. Tolka River runs approximately 1.4km south of the development site. The site is bounded to the west by Swords Road, to the south by Highfield Private Hospital, to the north by vacant lands and the Whitehall GAA pitch and to the east by Beechlawn Nursing Home with residential development beyond (Figure 2-1).

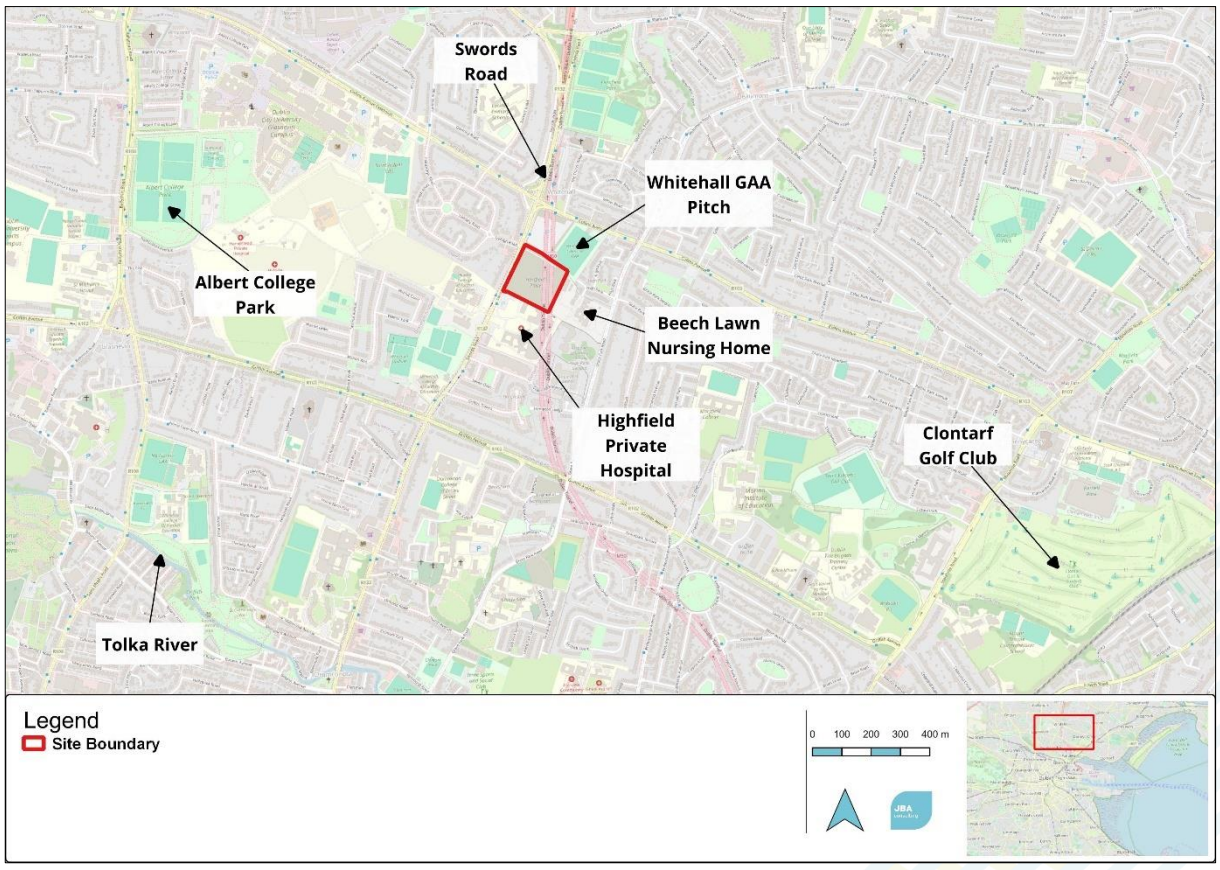

Figure 2-1: Site location with site boundary (©OSM, 2024)

2.3 Proposed Works

2.3.1 Project Description and amendments

The original permitted Strategic Housing Development Reg. Ref. 313289-22 consisted of 472 No. apartments and 1 No. café unit arranged in seven blocks and a separate purpose built creche facility.

- Block A: a part 5 No. to part 8 No. storey over basement block containing 61 No. apartments comprised of 5 No. studio units, 19 No. one bedroom units, 30 No. two bedroom units and 7 No. three bedroom units, 1 No café unit (99 sq m) and a communal amenity space (250 sq m) including a reception area, meeting rooms and a lounge at ground floor level; the provision of a residents gym, yoga room and changing facilities (205 sq m) at basement level; and the provision of a sun lounge (56 sq m) and external garden terrace (75 sq m) at sixth floor level.
- Block B: a part 5 No. to part 6 No. storey over basement block containing 78 No. apartments comprised of 15 No. studio units, 15 No. one bedroom units and 48 No. two bedroom units.
- Block C: a part 4 No. to part 6 No. storey over basement block containing 54 No. apartments comprised of 22 No. one bedroom units, 31 No. two bedroom units and 1 No. three bedroom unit.
- Block D: a part 7 No. to part 8 No. storey over basement block containing 76 No. apartments comprised of 36 No. one bedroom units, 39 No. two bedroom units and 1 No. three bedroom units.
- Block E: a part 4 No. to part 8 No. storey over basement block containing 58 No. apartments comprised of 16 No. one bedroom units and 42 No. two bedroom units.
- Block F: a 6 No. storey block containing 76 No. apartments comprised of 27 No. one bedroom units and 43 No. two bedroom units and 6 No. three bedroom units and a communal lounge at ground floor level (77 sq m).
- Block G: a part 4 No. to part 6 No. storey over basement block containing 72 No. apartments comprised of 6 No. studio units, 44 No. one bedroom units, 18 No. two bedroom units and 4 No. three bedroom units.

The subject scheme also included a 2 No. storey purpose built creche (c. 414 sq m) with an outdoor play area (c. 120 sq m); 348 No. car parking spaces comprised of 251 No. resident parking spaces at basement level, 54 No. resident parking spaces at surface level, 23 No. accessible parking spaces, 10 No. electric vehicle and car share spaces, 4 No. set-down spaces, 5 No. creche staff spaces and 1 No. café staff space; 11 No. motorcycle parking spaces; 527 No. bicycle parking spaces comprised of 480 No. secure cycle parking spaces and 47 No. visitor cycle parking spaces; hard and soft landscaping; public and private open spaces; bin storage; an ESB substation; and all other necessary associated site works above and below ground.

Amendments

The amendments to the proposed project will consist of:

- Internal layout alterations to Blocks A, B, C, D, & E resulting in the increase in the total number of units by 29 units, with an overall total of 334 units. There will be changes to the elevations to reflect these amendments along with minor alterations to the heights.
- The removal of the permitted basement and its replacement with a semi basement under blocks D and E and some of the communal open space. This will result in minor alterations to the heights to all blocks and the relocation of and a reduction in the number of car parking spaces.
- Alteration to the bicycle and car parking locations.
- All associated works to accommodate the proposed changes, including alterations to the open space.

The construction of the project is anticipated to take 36 months.

Foundations and basement

The single level semi-basements structure of the blocks of apartments will involve the excavation of approximately 5,320m^3, which is calculated on the basis of a 3,800m^2 basement x 1.4m deep.

A site layout plan can be seen in Appendix A.

2.3.2 Drainage

Construction Phase

Throughout the construction works, all surface water (water from excavations etc.) will be pumped to a holding and settlement tank on site for treatment. The discharge water from the final tank will be routed to the existing surface water system with approval from the local authority.

Construction of the development's Sustainable Urban Drainage System (SuDS) will follow best practice guidance. These measures will be in line with the Greater Dublin Regional Code of Practice for Drainage Works (DCC, 2021).

Operation Phase

Surface Water

The proposed surface water system will remain largely the same as the previously approved system (DCC Reg. Ref.3269/10) in that it will consist of two separate networks with two different outfalls locations, containing surface water drainage, slung drainage, basement drainage, SUDS features and an underground attenuation system. The main difference is that the attenuation tanks will be concrete tanks and not stormbloc cells. The surface water network will connect to a new manhole which will be installed on the existing 300mm dia storm main in the Swords Road. The surface water outfall to Swords Road will have a discharge rate of 1.6l/s which is the same as the existing planning. The outfall discharging to the existing surface water main in High Park will connect to an existing manhole and will have a discharge rate of 4.0l/sec.

SUDS

The proposed developments revised drainage system has been designed in accordance with the principles of Sustainable Urban Drainage Systems (SUDS) and in compliance with the principles outlined in the Greater Dublin Strategic Drainage Study. The following SUDS features

were selected as being suitable to manage the surface water for the approved planning application DCC Reg. Ref 3269/10:

- Green Roofs
- Rain gardens/Podium Green Areas over basement carpark
- Landscaped Areas/green gardens
- Permeable Paving parking spaces & footpaths
- Filter drains/Infiltration strips alongside impermeable surfaces where applicable
- Tree pits

The proposed SuDs measures will reduce the quantity and improve the quality of water discharging into the existing public storm main. Also the proposed SuDs measures provide a minimum of two stage treatment train approach including interception and primary/secondary treatment of surface water run-off. This treatment approach is in line with The CIRIA SuDS Manual C753.

Attenuation

There will be three attenuation storage tanks located on site, one which will be part of surface water network 1 which discharges into Swords Road and the other two which are planning approved will be part of surface water network 2 which discharges into High Park. The two concrete storage tanks in surface water network 2 will be connected together by a 750mm dia pipe and will act as one tank, filling together/emptying together.

Design Standards

All services have been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works and the Department of Environment 'Recommendations for site development works for Housing Areas'. The drainage network has been designed to cater for 100 year storms and for 20% additional increase for climate change for each pipe run.

The surface water drainage layout plan is provided in Appendix B.

Foul water drainage

The foul water drainage will be discharged through High Park to the northeast of the site, discharging into the North Dublin Drainage System (NDDS). The water is treated at Ringsend Wastewater Treatment Plant (WWTP), which has the capacity of 1.64 million PE, before being discharged into the Irish Sea in Dublin Bay.

Waste water drainage layout is provided in Appendix C.

2.4 Zone of Influence

The proposed Scheme will primarily impact the area within its site boundary, but a wider zone of influence is used for impacts relating to surface water, groundwater, land and air source-receptor-impact pathways.

Natura 2000 sites within the Zone of Influence (ZoI) were using the source-pathway receptor model (OPR, 2021) in relation to surface water and groundwater / ground-to-surface water pathways (i.e., local surface water sub-catchments and groundwater bodies / aquifers), with

a 15km range for those with a downstream hydrological connection. In respect to ZoI for air pollution (emissions and dust), Natura 2000 sites within a 250m buffer zone of the development were considered as per the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2014), including ex-situ foraging habitats utilised by QI species associated with local Natura 2000 sites. Furthermore, a 400m disturbance buffer (Cutts et al, 2013) from boundaries of the proposed Scheme has been incorporated into the ZoI in order to account for QI species potentially foraging within ex-situ habitats.

3 Existing Environment

3.1 Baseline Conditions

The ecological walkover survey was conducted on the 3rd July 2024 by JBA Ecologist Michael Coyle and Matt Hosking. The habitats and species recorded during the site visits are presented in detail in the following sections.

3.2 Habitats

A list of habitats and species recorded during the ecological habitat survey is listed in Table 3-1 below and presented in detail in the following sections. A habitat map is provided in Figure 3-1, this map also includes the spread of invasive species throughout the site.

Table 3-1: Fossitt (2000) habitats recorded during ecological walkover survey.

Habitat	Fossitt code
Buildings and artificial surfaces	BL3
Spoil and bare ground	ED2
Recolonising bare ground	ED3
Dry meadows and grassy verges	GS2
Scrub	WS1

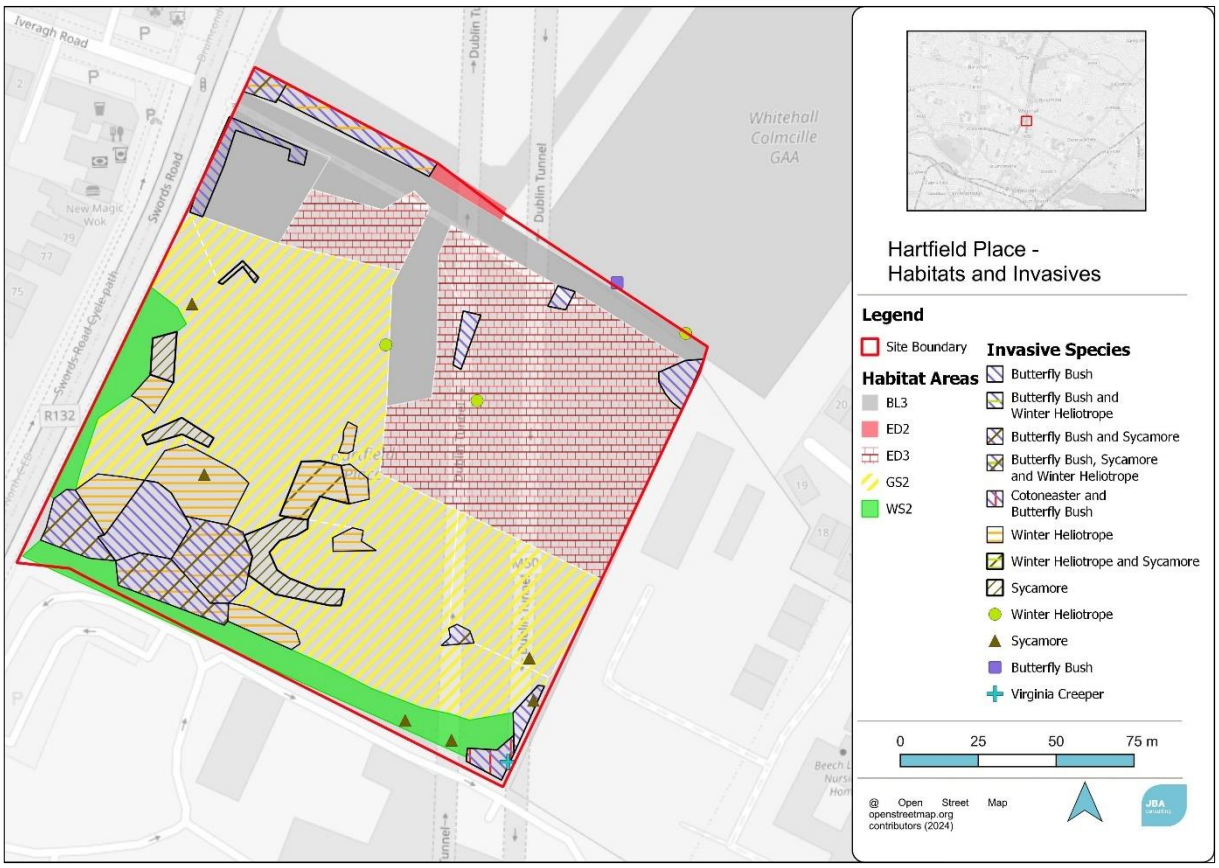

Figure 3-1: Habitats and Invasive Species recorded in 2024

3.2.1 BL3 - Buildings and artificial surfaces

A rectangular area of concrete and hardcore substrate was located at the entrance to the site off Sword's Road. Another entrance off Sword's Road was located to the south of the site, where a gravelled roadway/path ran across the southern section of the site.

3.2.2 GS2 - Dry meadows and grassy verges

Since its use as a construction site (2000-2006 for the Dublin Port Tunnel), the site has largely reverted to semi-natural grassland. Dry meadows and grassy verges comprise most of the site. Plants include Cock's Foot *Dactylis glomerata*, Perennial Rye Grass *Lolium perenne*, Ragwort *Senecio Jacobea*, Willowherb *Ephilobium* spp., Thistle *Cirsium* spp., Speedwell *Veronica* spp., Dock *Rumex* spp., Creeping Buttercup *Ranunculus repens*, Cow Parsley *Anthriscus sylvestris*, Plantain *Plantago lanceolata*, Wild Carrot *Daucus carota*, Oxeye Daisy *Leucanthemum vulgare*, Meadow Vetchling *Lathyrus pratensis*, Shaggy Hawkweed *Hieracium villosum*, Black Medick *Medicago lupulina*, Creeping Cinquefoil *Potentilla reptans*, Marsh Woundwort *Stachys palustris* and Common Knapweed *Centaurea nigra*. There were small patches of scrubby growth present in areas of the grassland area, with patches of Bramble scattered throughout.

A wetter area of grassland occurred in patches throughout the grassland body, primarily along the northern half of the site. Willow, Sharp Rush *Juncus acutus*, Horsetail *Equisetum* spp. and Pendulous Sedge *Carex pendula* were present here.

There were some cut tree trunks along the western boundary, evidence of trees having been there in the past.

A number of mature trees were located outside the site boundary, with Holm Oak to the south of the site, and two single mature specimens of Ash and Sycamore located just outside the boundary fence at the north of the site, near the site entrance on Sword's Road. These two trees were heavily covered in Ivy and the Ash had been previously topped.

Figure 3-2: Grassland within the site (2021).

Figure 3-3: Grassland within the site (2024).

3.2.3 ED3 - Recolonising bare ground

Since its use as a construction site for the Dublin Port Tunnel the site has largely reverted to semi-natural grassland, but revegetated earth banks and partially recolonised bare ground were recorded along the western boundary of the site, evidence of previous construction works.

Previous excavated areas and soil heaps on the site have revegetated with Yorkshire Fog *Holcus lanatus*; Pendulous sedge *Carex pendula*; Red Clover *Trifolium Pratense*; Ribbed Melilot *Melilotus officinalis*; Bramble *Rubus fruticosus* agg.; False Oat-grass *Arrhenatherum elatius* ; Colt's Foot *Tussilago farfara*; White Clover *Trifolium repens*; Willowherb *Epilobium* spp.; Lesser Trefoil *Trifolium dubium*; Creeping Cinquefoil *Potentilla reptans*; Creeping Buttercup *Ranunculus repens*; Dandelion *Taraxacum* spp.; Ragwort *Jacobaea vulgaris*; Red Fescue *Festuca rubra*; Silverweed *Potentilla anserina*; Ribwort Plantain *Plantago lanceolata*; Creeping Thistle *Cirsium vulgare*; Self-heal *Prunella vulgaris*; Scarlet Pimpernel *Anagallis arvensis* and some Willow *Salix* spp. Saplings, Mosses and Stonecrop *Sedum rupestris* occurred on areas of concrete at the southeast of the site.

3.2.4 WS2 - Immature woodland

There is an area of immature woodland, consisting of Sycamore, Ash and Elm *Ulmus* spp., along the western boundary, stretching along the south boundary to the east. These trees were

recorded during the survey in September 2021 and at the time were recorded to be about one year old as they were not present during the survey undertaken in February 2020. These trees have continued to mature in 2024.

Species within these immature woodland sections include Willow *Salix* spp., Silver Birch *Betula pendula*, Hawthorn *Cretaegus monogyna*, Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Blackthorn *Prunus spinosa*, Butterfly-bush *Buddleja davidii*, Bramble *Rubus fruticosus* agg., and Scot's Pine *Pinus sylvestris*. A few young Ash saplings, some covered with Ivy *Hedera hibernica* occurred along the south boundary. Many young Palm (Cabbage palm) *Cordyline australis* were scattered near the entrance to the site. Virginia Creeper *Parthenocissus quinquefolia* grows along the wall in the southeastern end of the site.

3.3 Protected Flora

There were no floral species listed under the Flora (Protection) Order 2022 recorded by the JBA Ecologist during the ecological walkover surveys.

3.4 Protected Fauna

During the flight line surveys, large flocks of Brent Goose were see flying over the site, but never landed within the site boundary, During the ecological walkover surveys, European Herring Gull *Larus argentatus* was recorded flying overhead of the site. This species also was not seen to land within the boundary of the site. Herring Gull is protected under Annex II(I) of the EU Birds Directive and is currently Amber listed (Breeding and Wintering) in the Birds of Conservation Concern in Ireland 2020-2026.

3.4.1 Light-bellied Brent Goose

3.4.1.1 Light-bellied Brent Goose - Desktop

Wintering birds, in particular Light-Bellied Brent Goose, utilise urban grasslands in parks and sport fields within the wider Dublin area for ex-situ grazing in the winter months. They fly between their foraging sites and roosting sites in Dublin Bay. The Light-Bellied Brent Goose is an Annex II species and a qualifying interest of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.

GPS data collected by PhD researcher Tess Handby (University of Exeter), who has monitored Brent Goose populations in the Dublin area between 2018 and 2020, indicates the site lies within the home range of North Bull Island (south end)'s Light-bellied Brent Goose population, although not within the population's core foraging area (Figure 3-4). However, the grassland at the proposed development site was considered unsuitable foraging habitat due to the unmanaged rough grass and scrubby habitat of the site. Brent Goose favour close cropped amenity grassland. The history of the site as a Dublin Port Tunnel construction site (2000-2006) and then as unmanaged grassland/scrub over the last number of years, precludes such birds. North of the site is a GAA pitch was identified to be a more suitable habitat for the Brent Goose (Figure 3-5).

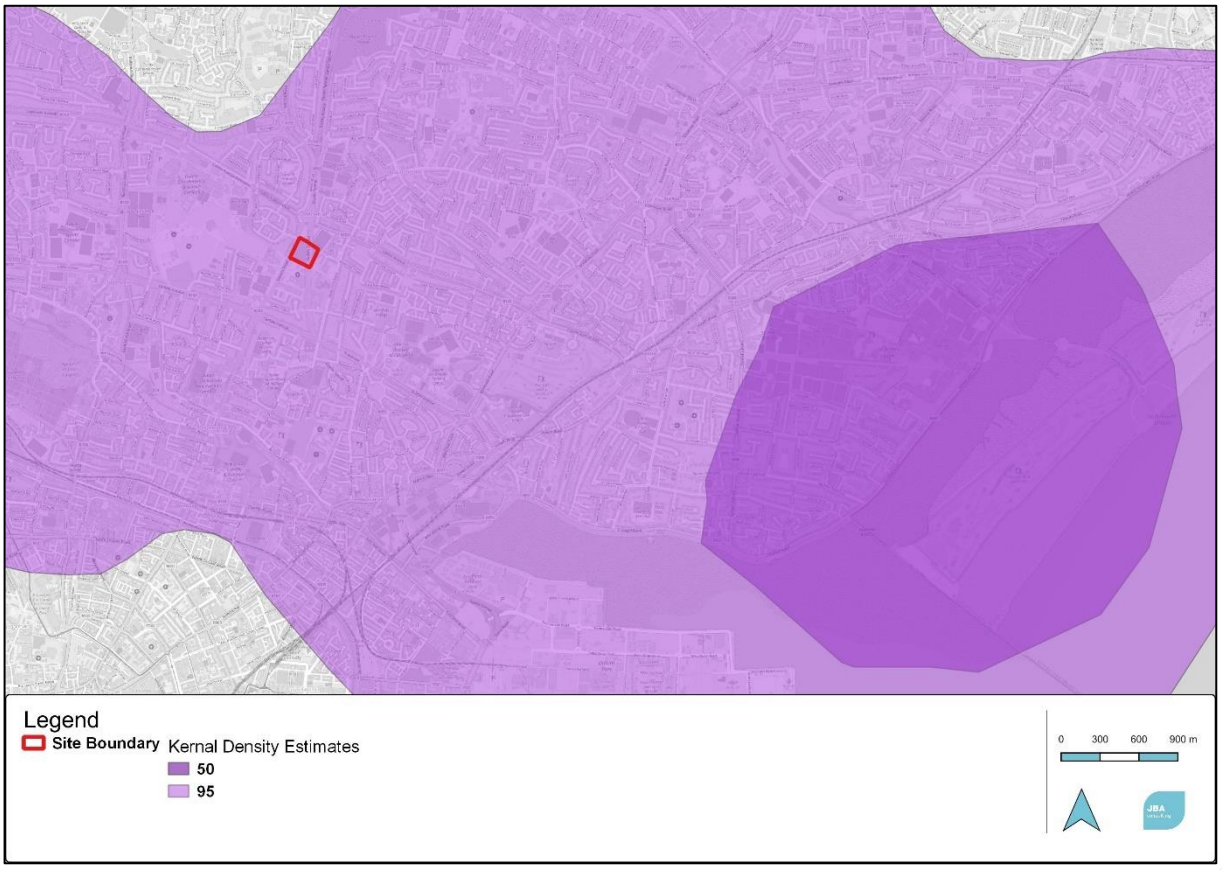

Figure 3-4: Kernal Density Estimates (KDE) for home range of North Bull Island (south end)'s Light-bellied Brent Goose population. The 95% KDE highlights range, while the 50% represents roosting and key foraging areas (©OSM, 2024, Handby, 2022).

Figure 3-5: Proposed development site (left) and GAA pitch north of site (right).

3.4.1.2 Light-bellied Brent Goose – Previous Surveys (Winter 2021 / 2022)

Flight line surveys of the Light-bellied Brent Goose were initially carried out between December 2021 and February 2022 on the following eight dates: 01st, 09th and 15th December 2021, 05th and 18th January 2022, 02nd, 10th and 23rd February 2022. The surveys were carried out to identify if the proposed site is within the flight line of the Light-bellied Brent Goose and to what extent they fly over the site and in close vicinity of the site. Each survey was two hours long. Six of the surveys were carried out at dawn and two of the surveys (18th January and 10th February) were carried out at dusk. The timings were chosen as the geese roost at night in Dublin Bay at North Bull Island and fly inland during the day to feed on open grasslands in Dublin. The survey techniques were adapted from NRA (2009) and Scottish Natural Heritage (2017).

Spot checks of two nearby grasslands known to have records of Light-bellied Brent Goose grazing was undertaken in combination with the flight line surveys, either after the survey was carried out at dawn or before if the survey was carried out at dusk. These sites are Clonturk Community College and St. Vincent's GAA Club, their locations in relation to the proposed site are shown in Figure 3-6.

The flight line surveys were carried out in tandem with wintering bird surveys at two other locations in north Dublin, namely DCU sports ground and Tolka Valley Park / Erin's Isle GAA, with a surveyor at each of these locations on the same dates as the surveys undertaken for the proposed development. Information from these surveys aided the current survey in understanding the movement of the Brent Goose between Dublin Bay and inland feeding sites. Neither of the grasslands of the site, nor the local GAA club were recorded to be used by the Brent Goose or any other wintering bird during the previous wintering bird flight line surveys carried out between December 2021 and February 2022.

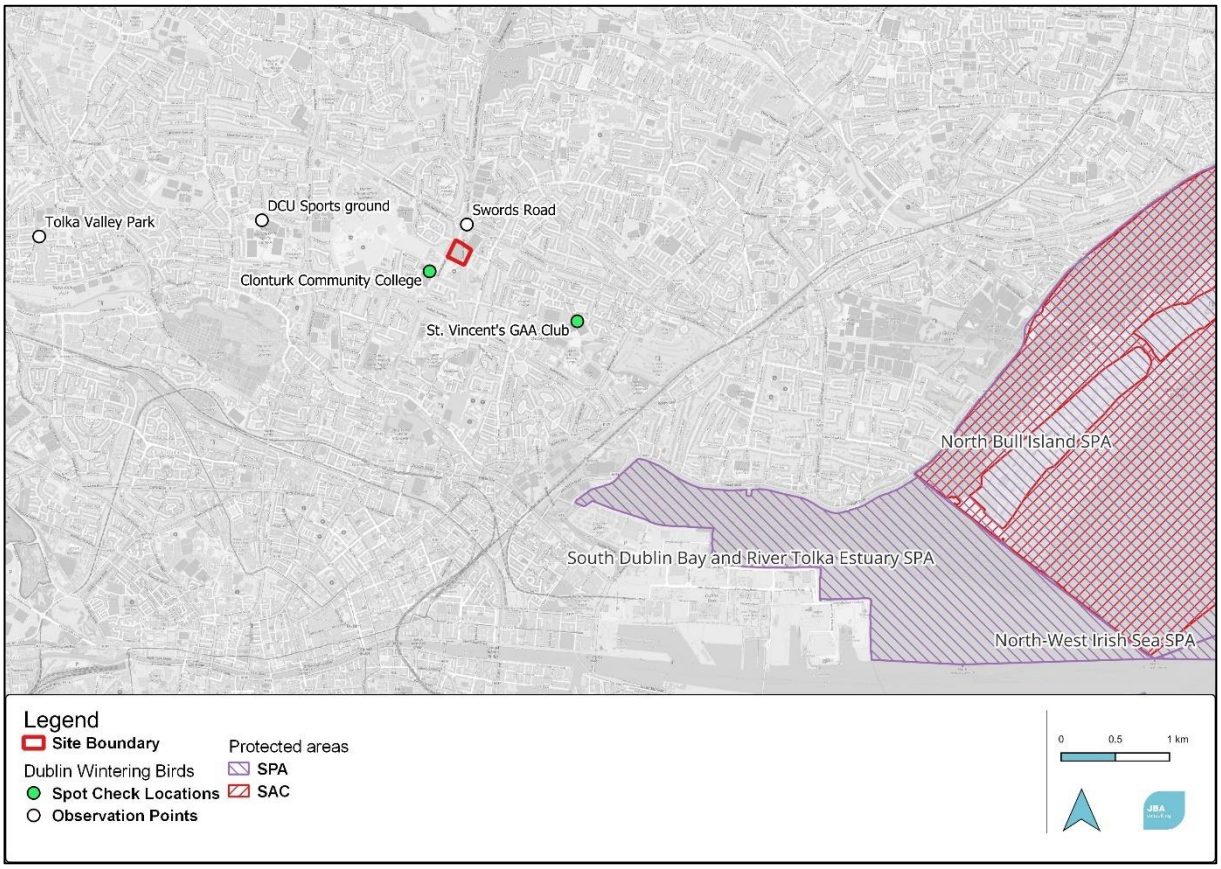

Figure 3-6: Observation location for flight line survey undertaken December 2021-February 2022, tandem surveys and location of spot checks carried out.

During the initial flight line surveys, Brent Goose were observed flying over the site on a number of occasions, though most of the observations recorded the geese flying further south of the site. Of a total of 19 observations of Brent Goose movement over the whole period (winter 2021 / 2022), five of these were over the proposed site on three separate survey dates. On five survey dates (01/12/2021, 15/12/2021, 05/01/2022, 18/01/2022 and 10/02/2022) no geese were observed flying over the site and on three of these dates (01/12/2021, 15/12/2021 and 05/01/2022) no geese were recorded flying at all during the observation period. When the geese were observed, they were seen flying either in a westerly direction or easterly direction, which is in line with existing knowledge of their behaviour, geese from the population at North Bull Island fly to inland grasslands to feed. The geese observed during the surveys tend to land at DCU sport grounds and Erin's Isle GAA located further west from the site, which was confirmed by observers at these locations. During the last survey, 23/02/2022, Brent Goose flying over the site were observed to land on the grounds of Clonturk Community College which was also confirmed by a spot check after completing the survey. This was the only time Brent Goose were noted at Clonturk Community College during these surveys. At St. Vincent's GAA sports fields one Brent Goose was noted during one of the spot checks, 09/12/2021.

A summary of the results of Light-bellied Brent Goose flying over the proposed development site in Winter 2021 / 2022 is provided in (Table 3-2) below.

Table 3-2: Summary of results of Brent Goose flight line survey with observations of in-flight over the proposed site in Winter 2021 / 2022.

Date and time of day		Count	Number of flocks	Estimated height over site
09-12-2021 dawn		20	1	15m
02-02-2022 dawn		50	1	15m
23-02-2022 dawn		7	1	25m
23-02-2022 dawn		80	2	20m
23-02-2022 dawn		23	1	20-25m

Brent Goose were observed flying over the site on three out of eight survey occasions (37.5% of the surveys). For two of these three occasions, only one flock was observed. More frequent observations were made on the 23rd of February where flocks were observed several times during the 2-hour survey period. During a total of 16 hours of survey, Brent Goose were observed on five separate occasions over the site and the time spent over the site was generally less than 5 seconds on each occasion.

The Light-bellied Brent Goose population at North Bull Island SPA (which is the population that forage inland across north Dublin) was 3,443 for the period 2006/07 – 2010/11 (based on mean peak for the period) (NPWS, 2014a). Recent counts for Dublin Bay (I-WeBS site 0U4040) is 3747, based on mean peak for the five-year period 2016/17 – 2020/21 (Bird Watch Ireland, 2024). This indicates that birds observed flying over the proposed site during the surveys represents less than 3% of the population and the number of individuals is considered to be low.

The estimated flight height recorded during the flight line survey was between 15-25m and the general height of the proposed buildings on site is between 20.37m – 26.75m. This means that the flight height was within the height of the proposed buildings.

3.4.1.3 Light-bellied Brent Goose – Updated Surveying (2024)

A series of three flight line surveys were completed on the 30th of January, 19th of February and the 7th of March 2024. Point counts for the flight line surveys were carried out from the north of the site at the neighbouring GAA pitch, watching the skyline for the passage of Brent Geese, before carrying out a ground-roosting survey of wintering birds.

On the 30th of January 2024, a large flock of approximately 140 Brent Geese was seen flying in a south-western direction. These birds were estimated to be flying at a height of 15m - 20m (Figure 3-7, Figure 3-8).

Figure 3-7: Brent Geese flying directly over the proposed site (30-01-2024)

Figure 3-8: Approximately 140 Brent Geese flying in a south-western direction (30-01-2024)

On the 19th of February, another large flock of Brent Geese were seen flying in a western direction across the skyline (Figure 3-9), however, these geese were flying south of the site beyond the local Bonnington Hotel (Figure 3-10).

Figure 3-9: A flock of Brent Geese (seen below the nets) flying eastwards on 19-02-2024. Gulls are seen above the net line.

Figure 3-10: Brent Geese flying beyond the Bonnington Hotel, far outside of the site boundary (19-02-2024)

On the third flight line survey (7th March 2024), Brent Geese were recorded flying northwards in the direction of the Ellenfield Park pitches. The flightlines recorded for the Brent Geese are shown in Figure 3-11 below. As per the surveys in 2021/2022, the flight line for the geese is still within the height of the proposed buildings, however this was only witnessed during one of the three recent surveys.

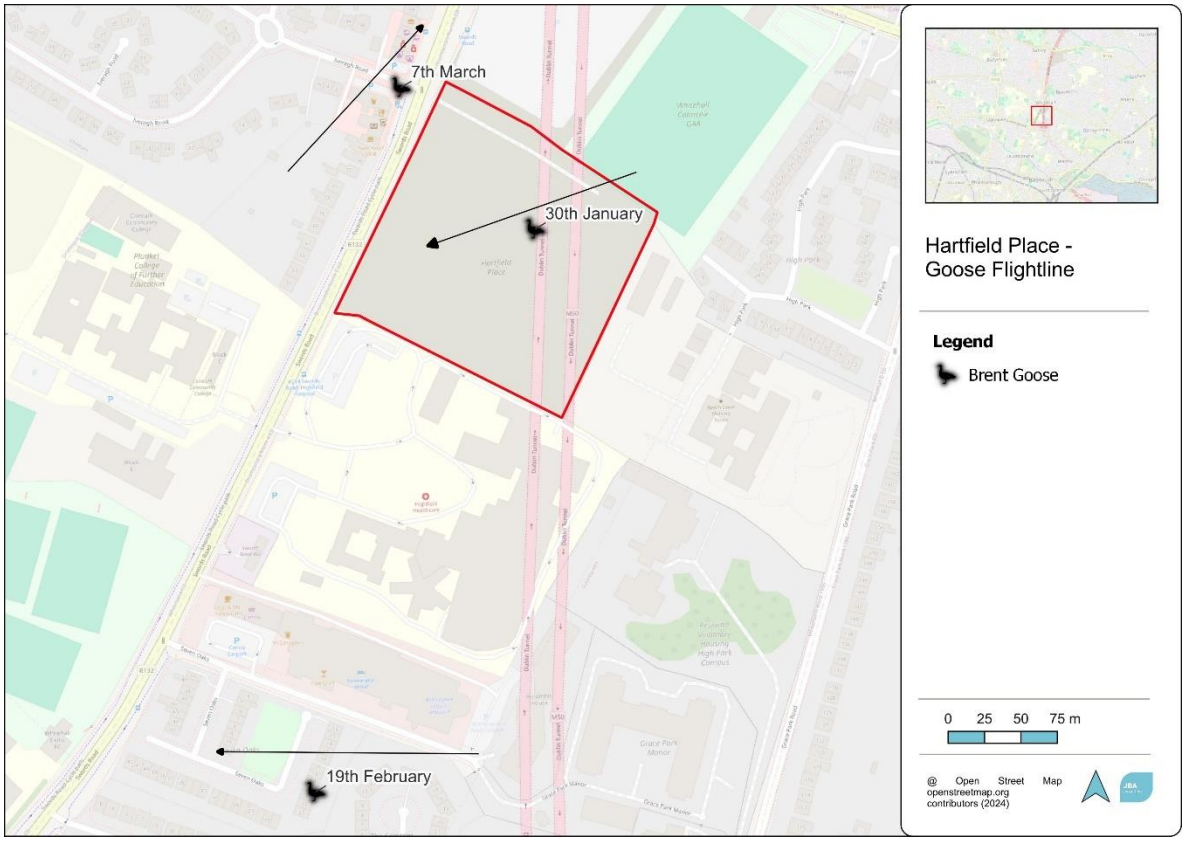

Figure 3-11: Brent Goose flightlines recorded during surveys

3.5 Protected Species from NBDC Database

A 2km radius custom polygon was created through NBDC Biodiversity Maps (NBDC, 2024) in order to assess if any QI and SCI species of the nearby Natura 2000 sites (Section 4) were recorded in close proximity of the site within the last ten years. Several SCI species directly associated with the Natura 2000 sites within the ZoI were recorded during a search of the NBDC database. These include Black-headed Gull *Chroicocephalus ridibundus*, Black-tailed Godwit *Limosa limosa*, Cormorant *Phalacrocorax carbo*, Eurasian Curlew *Numenius Arquata*, Eurasian Oystercatcher *Haematopus ostralegus*, Great Black-backed Gull *Larus marinus*, Herring Gull *Larus argentatus*, Lesser Black-backed Gull *Larus fuscus*, and Light-bellied Brent Goose *Branta bernicla hrota*.

The SCI species found within the custom polygon are listed below in (Table 3-3) and whether they are listed within the EU Birds directive or are a bird of conservation concern.

Table 3-3: QI and SCI species found within the custom polygon in the desktop survey

Bird Species	EU Birds Directive	BoCCI Amber List (2020-2026)
Black-headed Gull *Chroicocephalus ridibundus*	-	Amber
Black-tailed Godwit *Limosa limosa*	-	Red
Cormorant *Phalacrocorax carbo*	-	Amber
Eurasian Curlew *Numenius Arquata*	Annex II	Red
Great Black-backed Gull *Larus marinus*	-	Green
Herring Gull *Larus argentatus*	Annex II	Amber
Lesser Black-backed Gull *Larus fuscus*	Annex II	Amber
Light-bellied Brent Goose *Branta bernicla hrota*	-	Amber

For a full record list of protected flora and fauna collated from the NBDC database, see Appendix D

3.6 Invasive Species

Certain invasive non-native animals and plants are listed under the Third Schedule of S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011. This makes it an offence to release, plant them in the wild or cause them to disperse, spread or otherwise cause them to grow. If these species occur on a site proposed for development or other work which may disturb the ground, control of these species is likely to be required.

European Council's Regulation on the prevention and management of the introduction and spread of invasive alien species [1143/2014] sets out to prevent, minimise and mitigate the adverse impacts of the introduction and spread, both intentional and unintentional, of invasive alien species on biodiversity and the related ecosystem services as well as on human health and the economy.

During the ecological walkover surveys and invasive species surveys, five invasive plant species were recorde;, Butterfly Bush *Buddleja davidii* (Medium Impact Invasive), Cotoneaster *Cotoneaster* (Low Impact Invasive), Sycamore *Acer pseudoplatanus* (Medium Impact Invasive), Virginia Creeper *Parthenocissus quinquefolia* (Medium Impact Invasive), and Winter Heliotrope *Petasites pyrenaicus* (Low Impact Invasive).

Table 3-4 below provides a list of invasive non-native species (INNS) recorded within the 2km polygon (NBDC, 2024). It includes species, their level of impact, and whether they are listed on the Third Schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011.

Table 3-4: INNS recorded within 2km radius to the site of the proposed works (2024)

Invasive Non-Native Species	Impact	Regulation S.I. 477/2011
American Mink *Mustela vison*	High	Yes
American Skunk-cabbage *Lysichiton americanus*	Medium	Yes
Arthurdendyus triangulatus	High	No
Brazilian Giant-rhubarb *Gunnera manicata*	Medium	Yes
Butterfly-bush *Buddleja davidii*	Medium	No
Cherry Laurel *Prunus laurocerasus*	High	No
Common Broomrape *Orobanche minor*	Medium	No
Eastern Grey Squirrel *Sciurus carolinensis*	High	Yes
European Rabbit *Oryctolagus cuniculus*	Medium	No
Fallow Deer *Dama dama*	High	Yes
Giant Hogweed *Heracleum mantegazzianum*	High	Yes
Harlequin Ladybird *Harmonia axyridis*	High	Yes
Himalayan Honeysuckle *Leycesteria formosa*	Medium	No
House Mouse *Mus musculus*	High	No
Indian Balsam *Impatiens glandulifera*	High	Yes
Japanese Knotweed *Fallopia japonica*	High	Yes
Narrow-leaved Ragwort *Senecio inaequidens*	Medium	No
Red-eared Terrapin *Trachemys scripta*	Medium	No
Rose-ringed Parakeet *Psittacula krameri*	High	No
Sea-buckthorn *Hippophae rhamnoides*	Medium	Yes
Spanish Bluebell *Hyacinthoides hispanica*	N/A	Yes

Invasive Non-Native Species	Impact	Regulation S.I. 477/2011
Sycamore *Acer pseudoplatanus*	Medium	No
Three-cornered Garlic *Allium triquetrum*	Medium	Yes
Traveller's-joy *Clematis vitalba*	Medium	No
Wild Parsnip *Pastinaca sativa*	Medium	No

For a full record list of invasive non-native species (INNS) collated from the NBDC database, see Appendix E.

3.7 Local Waterbodies within the vicinity of the Proposed Site

The proposed site is located within the Water Framework Directive (WFD) Liffey and Dublin Bay Catchment, within the sub-catchment Tolka_SC_020 (EPA, 2024). Table 3-5 and Figure 3-12 outline the sub catchments, freshwater streams, transitional waterbodies, and coastal waterbodies within the vicinity of the site.

The closest waterbody to the site is the Tolka_060, approximately 1.4km south of the site, which flows in a west-east direction and eventually reaches Dublin Bay. The Tolka_050 waterbody is located approximately 2.7km west of the site and feeds into the Tolka_060. The Santry_020 waterbody is located approximately 2.6km north of the site and flows in a west-east direction, eventually reaching North Dublin Bay.

Table 3-5: The WFD waterbodies within the ZoI of the proposed works.

WFD Waterbody	WFD Status (2016-2021)	Risk Status
Tolka_050	Poor	At risk
Tolka_060	Poor	At risk
Santry_020	Poor	At risk
North Bull Island	Moderate	Review
Tolka Estuary	Poor	At risk
Liffey Estuary Lower	Moderate	At risk
Dublin Bay	Good	Not at risk

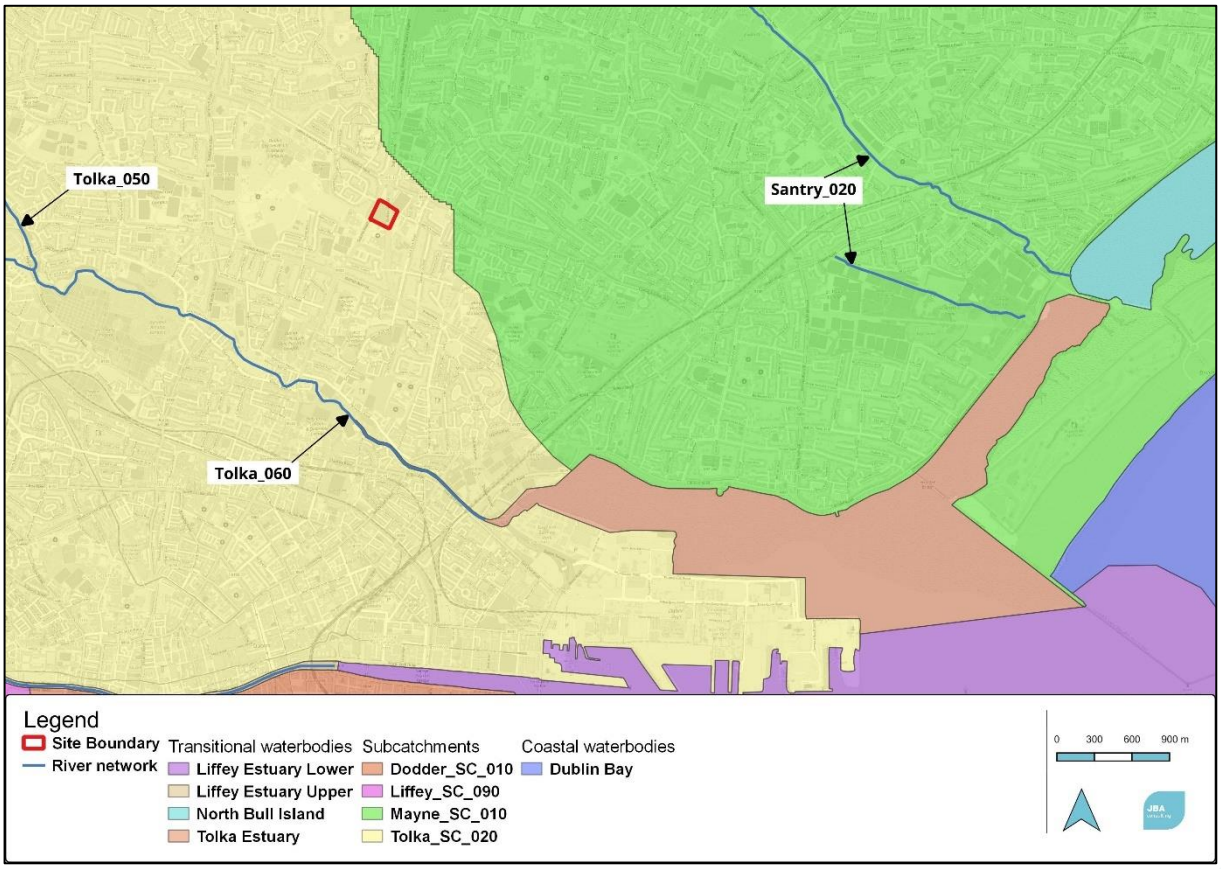

Figure 3-12: Sub catchments, transitional waterbodies, coastal waterbodies, and local watercourses within ZoI (©OSM, 2024)

3.8 Groundwater Bodies

The proposed development is located within the Dublin (IE_EA_G_008) groundwater body (Figure 3-13). The Dublin groundwater body currently has “Good” WFD status (2016-2021), while its risk status is in review.

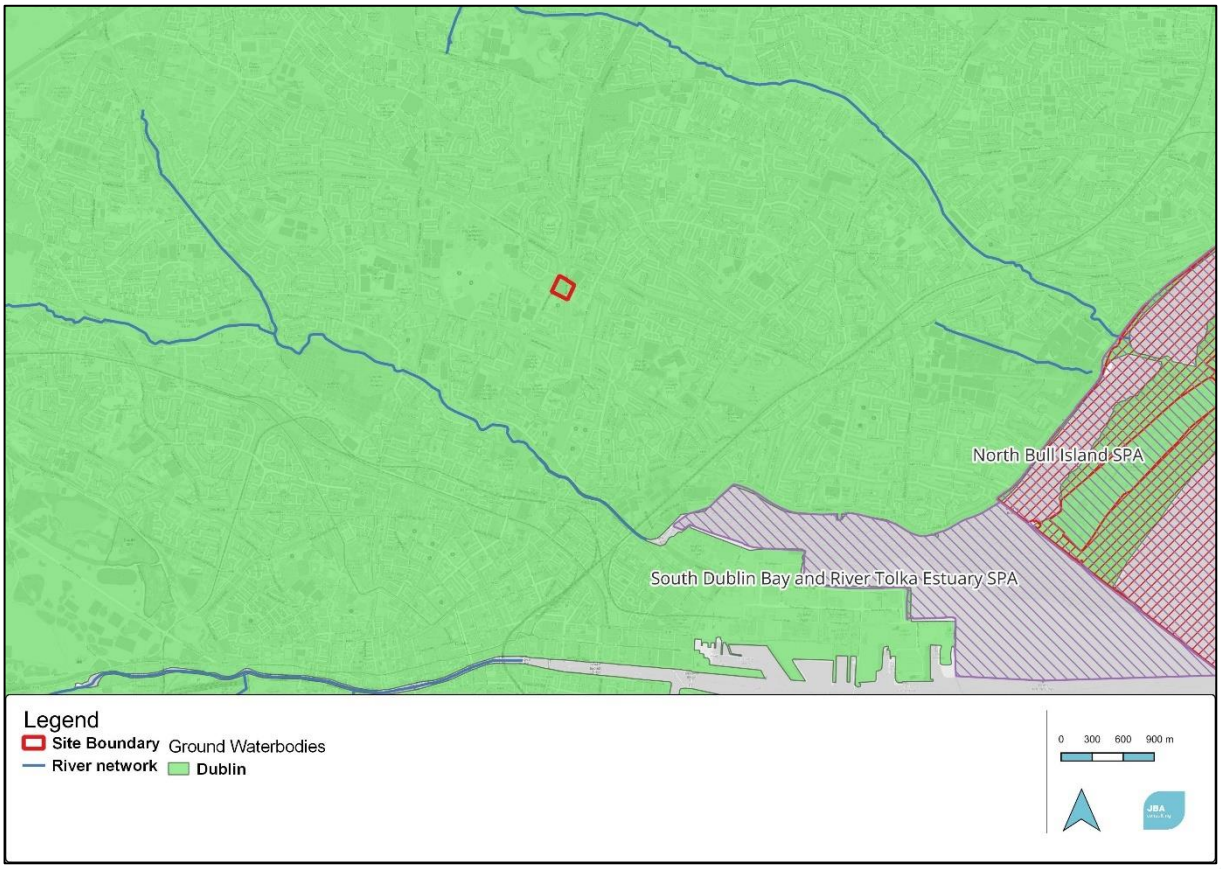

Figure 3-13: Groundwater bodies on site and in the area (©OSM, 2024)

3.8.1 Underlying Geology & Aquifer vulnerability

The underlying geology is predominately made up of dark limestone and shale of the Lucan Formation, and the sub-soil is made up of both till derived from limestone at the very north of the site and made ground for the majority of the area (EPA, 2024).

The aquifer within the underlying bedrock is considered to be moderately productive, but only in local zones. It has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. A shallow zone of higher permeability may exist within the top few metres of more fractured/weathered rock, and higher permeability may also occur along fault zones. These zones may be able to provide larger 'locally important' supplies of water. In general, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres (GSI, 2024).

As a result, the site displays 'Low' aquifer vulnerability (Figure 3-14) and 'Low' soil permeability within its boundaries (GSI, 2024).

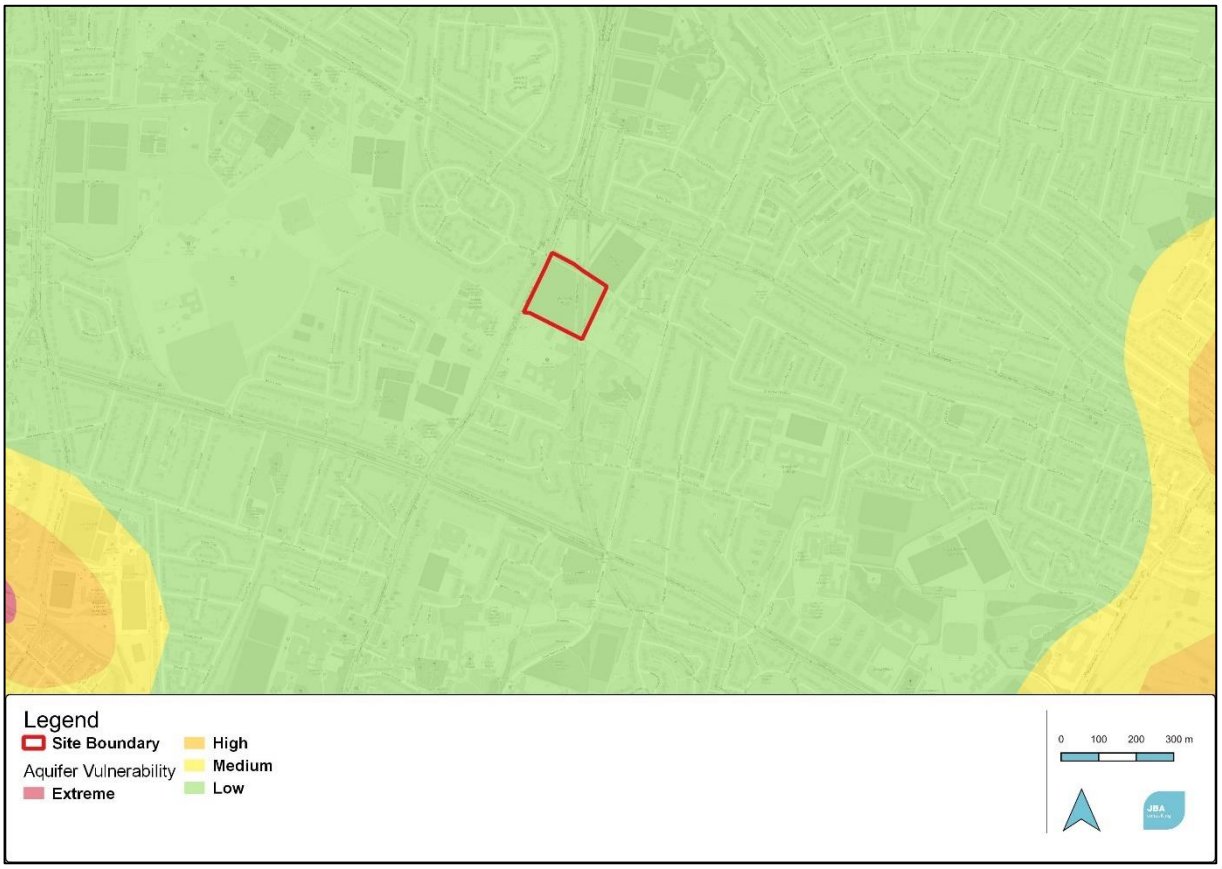

Figure 3-14: Groundwater vulnerability on site and in the local area (©OSM, 2024).

4 Natura 2000 Sites

The DEHLG (2009, 2010 rev.) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area.
- Any Natura 2000 sites within the likely zone of impact of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects.
- Any Natura 2000 sites that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

Furthermore, the OPR guidance is to use a Source-Pathway-Receptors model, therefore only directly connected sites will be retained (OPR, 2021).

Within the ZoI, five Natura 2000 sites were recorded (Table 4-1) and mapped in relation to the proposed site (Figure 4-1), with potential pathways from the site indicated.

Table 4-1: Natura 2000 sites within ZoI of the proposed site

Natura 2000 site	Site Code	Approximate direct distance from site (closest point)	Approximate hydrological distance
South Dublin Bay and River Tolka Estuary SPA	004024	2.4 km	3.5km
North Bull Island SPA	004006	4.6 km	7.1km
North Dublin Bay SAC	000206	4.6 km	7.1km
South Dublin Bay SAC	000210	5.2 km	8.2km
North-West Irish Sea SPA	004236	7.3 km	9km

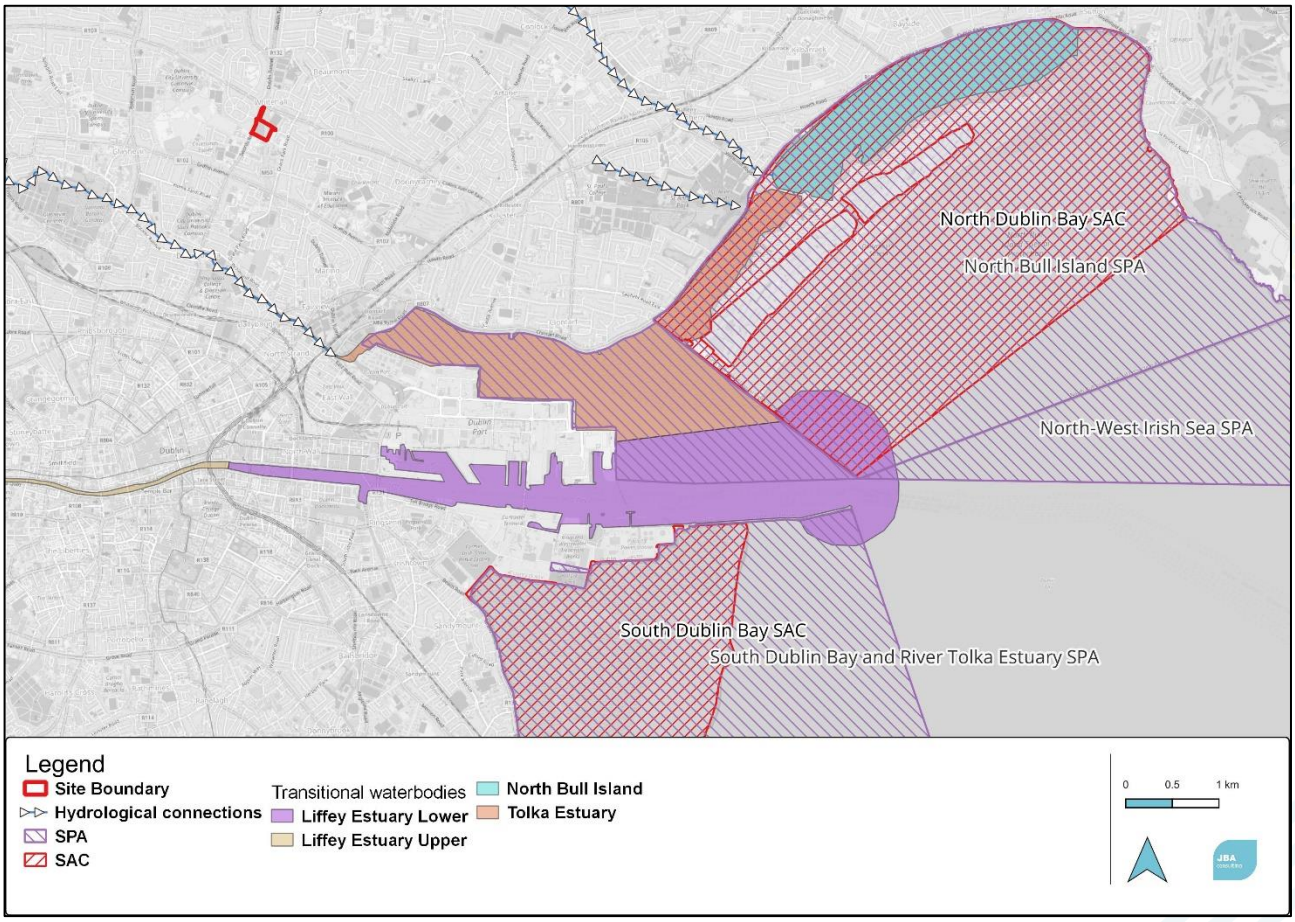

Figure 4-1: Natura 2000 sites within ZoI of the proposed project (©OSM, 2024).

Qualifying Interests (QIs) / Special Conservation Interests (SCIs), brief site descriptions, and potentially relevant threats/pressures are described below (Table 4-2) for the following Natura 2000 sites with pathways to the development:

- South Dublin Bay and River Tolka Estuary SPA
- North Bull Island SPA
- North Dublin Bay SAC
- South Dublin Bay SAC
- North-West Irish Sea SPA

Table 4-2: Site briefs; QIs / SCIs; and project-relevant threats /pressures and their impacts and sources to the Natura 2000 sites within the ZoI

Site Name	Brief	Qualifying Interests	Project Relevant Threats / Pressures: Impact (Source)
South Dublin Bay and River Tolka Estuary SPA (004024)	This designated site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay, as well as much of the Tolka Estuary to the north of the River Liffey. The sands support the largest stand of Dwarf Eelgrass on the east coast of Ireland. Sediments in the Tolka Estuary vary from soft thixotropic muds with a high organic content in the inner estuary to exposed, well aerated sands off the Bull Wall. The site regularly has an internationally important population of Brent Geese, which feeds on Dwarf Eelgrass in the autumn. It has nationally important numbers of a further 6 species including: Oystercatcher, Ringed Plover, Red Knot, Sanderling, Dunlin and Bar-tailed Godwit. It is an important site for wintering gulls, especially Black-headed Gull and Common Gull. Is a regular autumn roosting ground for significant numbers of terns, including Roseate Terns, Common Tern and Artic Tern (NPWS, 2015a).	- Light-bellied Brent Goose *Branta bernicla hrota* [A046] - Eurasian Oystercatcher *Haematopus ostralegus* [A130] - Ringed Plover *Charadrius hiaticula* [A137] - Grey Plover *Pluvialis squatarola* [A141] - Red Knot *Calidris canutus* [A143] - Sanderling *Calidris alba* [A144] - Dunlin *Calidris alpina* [A149] - Bar-tailed Godwit *Limosa lapponica* [A157] - Common Redshank *Tringa totanus* [A162] - Black-headed Gull *Chroicocephalus ridibundus* [A179] - Roseate Tern *Sterna dougallii* [A192] - Common Tern *Sterna hirundo* [A193] - Arctic Tern *Sterna paradisaea* [A194] - Wetland and Waterbirds [A999] (NPWS, 2015d)	Reclamation of land from sea, estuary or marsh: High (outside) Discharges: High (inside) Roads and motorways: Moderate (outside) Eutrophication (natural): Moderate (inside) Urbanised areas, human habitation: High (outside) Nautical sports: Moderate (inside) Industrial or commercial areas: High (outside) Bait digging/collection: Moderate (inside) Walking, horse-riding and non-motorised vehicles: High (inside) Leisure fishing: Moderate (inside) (EEA, 2021)
North Bull Island SPA (004006)	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port. The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Brent Goose and Bar-tailed Godwit and is the top site in the country for both of these species. A further 14 species have populations of national importance, with particular notable numbers of Shelduck, Pintail,	- Light-bellied Brent Goose *Branta bernicla hrota* [A046] - Common Shelduck *Tadorna tadorna* [A048] - Eurasian Teal *Anas crecca* [A052] - Northern Pintail *Anas acuta* [A054] - Northern Shoveler *Anas clypeata* [A056] - Eurasian Oystercatcher *Haematopus ostralegus* [A130]	Continuous urbanisation: Medium impact (outside) Industrial or commercial areas: Medium impact (outside) Discharges: Medium impact (both)

Site Name	Brief	Qualifying Interests	Project Relevant Threats / Pressures: Impact (Source)
	Grey Plover, and Red Knot. The SPA is a regular site for passage waders such as Ruff, Curlew Sandpiper and Spotted Redshank. The site supports Short-eared Owl in winter (NPWS, 2014).	- European Golden Plover *Pluvialis apricaria* [A140] - Grey Plover *Pluvialis squatarola* [A141] - Red Knot *Calidris canutus* [A143] - Sanderling *Calidris alba* [A144] - Dunlin *Calidris alpina* [A149] - Black-tailed Godwit *Limosa limosa* [A156] - Bar-tailed Godwit *Limosa lapponica* [A157] - Eurasian Curlew *Numenius arquata* [A160] - Common Redshank *Tringa totanus* [A162] - Ruddy Turnstone *Arenaria interpres* [A169] - Black-headed Gull *Chroicocephalus ridibundus* [A179] - Wetland and Waterbirds [A999] (NPWS, 2015c)	(EEA, 2020b)
North Dublin Bay SAC (000206)	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. The interior of the island is excluded from the site as it has been converted to golf courses. Nature conservation is a main land use within the site. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented,	- Mudflats and sandflats not covered by seawater at low tide [1140] - Annual vegetation of drift lines [1210] - *Salicornia* and other annuals colonising mud and sand [1310] - Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] - Mediterranean salt meadows (*Juncetalia maritimi*) [1410] - Embryonic shifting dunes [2110] - Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] - Humid dune slacks [2190] - Petalwort *Petalophyllum ralfsii* [1395]	Industrial or commercial areas: High impact (outside) Discharges: High impact (inside) Diffuse pollution to surface waters due to other sources not listed: Medium impact (inside) Urbanised areas, human habitation: High impact (outside) Invasive non-native species: Medium impact (inside)

Site Name	Brief	Qualifying Interests	Project Relevant Threats / Pressures: Impact (Source)
	and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual *Salicornia* species. Petalwort *Petalophyllum ralfsii* occurs at its only known station away from the western seaboard (NPWS, 2013b).	(NPWS, 2013b)	Other point source pollution to surface water: High impact (inside) (EEA, 2020a)
South Dublin Bay SAC (000210)	This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The designated site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate faunal assemblage exists within the SAC. The SAC has the largest stand of Dwarf Eelgrass *Zostera nolti* on the east coast (NPWS, 2015b).	- Mudflats and sandflats not covered by seawater at low tide [1140] - Annual vegetation of drift lines [1210] - *Salicornia* and other annuals colonising mud and sand [1310] - Embryonic shifting dunes [2110] (NPWS, 2013c)	Urbanised areas, human habitation: High impact (outside) Roads, motorways: Low impact (outside) Discharges: Moderate impact (both) Marine water pollution: Medium impact (both) Industrial or commercial areas: High impact (outside) (EEA, 2020c)
North-west Irish Sea SPA (00426)	The North-west Irish Sea SPA constitutes an important resource for marine birds. The estuaries and bays that open into it along with connecting coastal stretches of intertidal and shallow subtidal habitats, provide safe feeding and roosting habitats for waterbirds throughout the winter and migration periods. These areas, along with more pelagic marine waters further offshore, provide additional supporting habitats (for foraging and other maintenance behaviours) for those seabirds that breed at colonies on the north-west Irish Sea's islands and coastal headlands. These marine areas are also important for seabirds outside the breeding period. This SPA extends offshore along the coasts	Red-throated Diver *Gavia stellata* [A001] Great Northern Diver *Gavia immer* [A003] Fulmar *Fulmarus glacialis* [A009] Manx Shearwater *Puffinus puffinus* [A013] Cormorant *Phalacrocorax carbo* [A017] Shag *Phalacrocorax aristotelis* [A018] Common Scoter *Melanitta nigra* [A065] Little Gull *Larus minutus* [A177] Black-headed Gull *Chroicocephalus ridibundus* [A179]	Not currently listed given the sites newly granted SPA status. (NPWS, 2023a)

Site Name	Brief	Qualifying Interests	Project Relevant Threats / Pressures: Impact (Source)
	of counties Louth, Meath and Dublin, and is approximately 2,333km2 in area. This SPA is ecologically connected to several existing SPAs in this area. (NPWS, 2023b).	Common Gull *Larus canus* [A182] Lesser Black-backed Gull *Larus fuscus* [A183] Herring Gull *Larus argentatus* [A184] Great Black-backed Gull *Larus marinus* [A187] Kittiwake *Rissa tridactyla* [A188] Roseate Tern *Sterna dougallii* [A192] Common Tern Sterna hirundo [A193] Arctic Tern *Sterna paradisaea* [A194] Little Tern *Sterna albifrons* [A195] Guillemot *Uria aalge* [A199] Razorbill *Alca torda* [A200] Puffin *Fratercula arctica* [A204] (NPWS, 2023b).	

5 Other Relevant Plans and Projects

5.1 In-combination Effects

As part of the Screening for an Appropriate Assessment, in addition to the proposed works, other relevant plans and projects in the region that may induce cumulative impacts must be considered at this stage. These are listed in sub-sections below, and are assessed with the proposed Scheme in the Screening Assessment.

5.2 Plans

The following projects or plans were identified as potential sources of in-combination effects:

- Dublin City Development Plan 2022-2028
- Greater Dublin Drainage Strategy 2005
- River Basin Management Plan for Ireland 2018-21 / 2022-2027

5.2.1 Dublin City Development Plan 2022-2028 – Natura Impact Report Conclusion (Scott Cawley, 2022)

The Dublin City Development Plan 2022-2028 is a plan which sets out how the city will develop to meet the needs of all residents, workers and visitors. The plan has 16 chapters and has the following objectives:

- Guide growth and development
- Provide a strategy to achieve proper planning
- Show how sustainable development will be achieved, that is development that meets current needs and won't comprise future generations meeting their needs.

The plan aims to facilitate the accommodation of a projected 20,120–31,520 additional people within the city by 2028.

It has been objectively concluded by Scott Cawley Ltd., following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts associated with the Dublin City Development Plan 2022-2028, and that the implementation of mitigatory measures identified in Section 8 of the NIR (and included as objectives and policies of the Plan), that the Plan will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects (Scott Cawley, 2022).

5.2.2 Greater Dublin Drainage Strategy

The Greater Dublin Drainage Strategy (2018) sets out the strategic planning for the development of wastewater treatment in the Greater Dublin area in relation to the Ringsend WWTP Upgrade, Greater Dublin Drainage Project and associated wastewater network drainage projects (Irish Water, 2024). The Ringsend WWTP Upgrade includes plans to expand the WWTP to its ultimate capacity, together with associated network upgrades required. The

Greater Dublin Drainage Project is planned to relieve both the Ringsend WWTP and network loading by construction of a new WWTP at Clonshaugh, an orbital sewer and provision of an outfall pipe discharging 1km northeast of Ireland's Eye.

The Ringsend WWTP upgrade is in progress and carried out in stages, with an increased capacity of 400,000 PE by Q1 2021 and the ultimate capacity of 2.4 million PE to be in operation by 2025 (Irish Water, 2024).

The Greater Dublin Drainage Project is strategically important to the Dublin Region in that it will provide capacity for residential and commercial growth (Irish Water, 2018).

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

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

The first cycle of River Basin Management Plans included the Eastern River Basin District - River Basin Management Plan 2009 – 2015 (WFD, 2010). The plans summarised the waterbodies that may not meet the environmental objectives of the WFD by 2015 and identified which pressures are contributing to the environmental objectives not being achieved. The plans described the classification results and identified measures that can be introduced in order to safeguard waters and meet the environmental objectives of the WFD;

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

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

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

Ireland's third River Basin Management Plan 2022-2027 was out for public consultation until March 31st, 2022 (DHPLG, 2022). The 3rd cycle draft Catchment Reports were published in August 2021. The draft Catchment Reports provide a summary of the water quality assessment outcomes for respective catchments, including status and risk categories, significant threats and pressures, details on protected areas and a comparison between cycle 2 and cycle 3.

The third cycle draft Catchment Report for Liffey and Dublin Bay Catchment (EPA, 2021) identified that between Cycles 2 and 3 there has been an overall small improvement in the catchment's status. The overall change in quality between Cycles 2 and 3 include 2 waterbodies that have achieved High Status, which is an increase of one, 56 which achieve Good Status has been increased by four, 23 achieving a Moderate Status which is a decrease in four waterbodies, and 24 achieving a Poor Status an increase of 1 between cycles. There are no Bad Status waterbodies as of Cycle 3, which is a decrease of one from Cycle 2. The main significant pressures are aquaculture, anthropogenic, atmospheric, historically polluted sites and waste pressures followed by agriculture, urban run-off and forestry.

5.3 Other Projects

A search of planning applications that have been made in the last three years and within 2km of the proposed project was carried out. The projects that could have in-combination effects with the proposed development are listed in Table 5-1 below.

Table 5-1: Other projects within the locality which may have an in-combination effects with the proposed development.

Planning Reference	Address	Application Status	Decision date	Summary of development
3132/22	Clonturk College, Swords Road, Whitehall, Dublin 9	GRANT PERMISSION AND RETENTION PERMISSION	21/7/2022	PERMISSION & RETENTION: Planning permission is being sought for a temporary three (3) year planning permission for 1) Construction of new Two-storey Temporary Modular standalone school extension with 18 additional classrooms and associated teaching, administrative, and circulation spaces to south of school site, 2) Retention of existing Two-storey Temporary Modular standalone school extension to rear (northwest) of main school and Single storey Temporary Modular Changing Rooms to front (southeast) of main school building (constructed under Reg. Ref. 2233/18), 3) Retention of existing 'Classrooms Block 1' Single storey Temporary Modular standalone extension to east of site, 4) Retention of existing 'Classrooms Block 2' Single storey Temporary Modular standalone classroom extension to south of site and associated site development works.

5.1 Summary

The County and Local Development Plan; Greater Dublin Drainage Strategy, River Basin Management Plan and other local projects are considered in combination with the currently proposed project in the Screening Assessment Section 6.2.6 below.

6 Screening Assessment

6.1 Introduction

This screening exercise will focus on assessing the likely adverse effects of the project on the Natura 2000 site identified in Section 4 above.

This section identifies the potential likely significant effects which may arise as result of the proposed project. It then goes on to identify how these impacts could potentially impact on the Natura 2000 sites. The significance of likely effects is also assessed, with any potential in-combination effects also identified.

The Natura 2000 sites to be assessed are:

- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)
- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- North-West Irish Sea SPA (004236)

6.2 Assessment Criteria

6.2.1 Description of the individual elements of the project (either alone or in combination with other plans or project) likely to give rise to impacts on the Natura 2000 sites

Potential adverse impacts that could cause a significant effect on the qualifying interests of the Natura 2000 sites, during the construction and operational phases of the project, will impact on the sites via surface water pathways, groundwater pathways and land and air pathways. Surface water pathways can impact on surface water quality and surface water dependent habitats and species. Groundwater pathways can impact on groundwater quality and quality of groundwater dependent habitats and species. Land and air pathways can impact by direct physical disturbance and dust or other air-based emissions.

The proposed project is not anticipated to have likely significant effects on the QIs and SCIs of the five Natura 2000 sites. The rationale for including and excluding specific impacts via the main pathways is given in more detail in the following sub-sections.

6.2.2 Surface Water Pathways

Construction Phase

The site lies within the Water Framework Directive (WFD) catchment Liffey and Dublin Bay Catchment, within the sub-catchment Tolka_SC_020 (EPA, 2024). The site shares its sub-catchment with one of the Natura 2000 sites within the Zol, South Dublin Bay and River Tolka Estuary SPA. No surface water bodies are located within the site boundary (Figure 6-1).

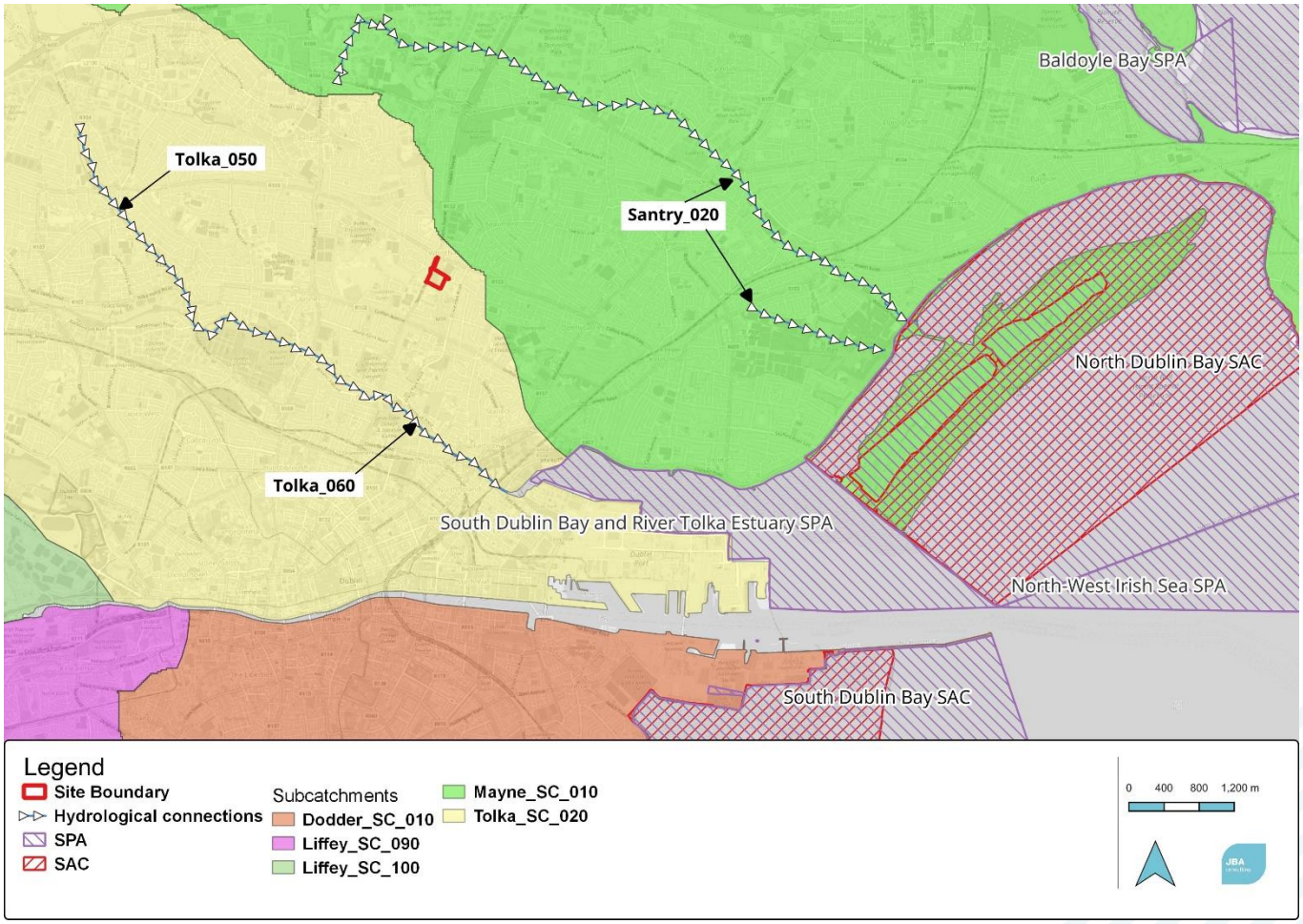

Figure 6-1: Site location and Natura 2000 sites, with surface water sub-catchments (©OSM, 2024).

The nearest watercourse, the Tolka_060, is approximately 1.4km south of the site at its closest point and flows directly into the South Dublin Bay and River Tolka Estuary SPA. Potential pollutants including diesel and engine/hydraulic oils will be utilised at the site and topsoil will be removed, and dust may be generated during excavations. These pollutants are not likely to reach the nearest surface waterbody of the Tolka River, as they would need navigate a distance of 1.4 km of road surface, urban area, and green space.

In the event any pollutants manage to pass these substantial buffers, they must then travel approximately 2.4km to reach the nearest Natura 2000 site (South Dublin Bay and River Tolka Estuary SPA). Any pollutants (e.g. hydrocarbons) would undergo a degree of dilution in the Tolka watercourse, followed by a higher level of dilution in the larger estuarine systems (Tolka Estuary) before entering Dublin Bay where it would dilute further in the coastal waters. Ultimately resulting in any pollutants that entered the Tolka watercourse to be reduced to non-hazardous concentration levels, negating any likely significant effects on the Natura 2000 sites within the ZoI.

Operational Phase

The operational phase is not anticipated to impact surface run-off. All services have been designed in accordance with the principles of Sustainable Urban Drainage Systems (SUDS) in and in compliance with the principles outlined in the Greater Dublin Strategic Drainage Study. SUDS features include Green roofs, gardens, permeable paving for parking and paths, filter strips and tree pits.

The foul water drainage of the proposed site will connect with the existing foul water drainage system within the Whitehall area. Ultimately, the foul waste is treated at the Ringsend WWTP [D0034-01] which services the greater Dublin area.

Therefore, likely significant effects via surface water pathway during the construction and operational phases are not anticipated for the Natura 2000 sites within the ZoI.

6.2.3 Groundwater Impact Pathways

Construction Phase

The proposed site is located within Dublin groundwater body (IE_EA_G_008) where the bedrock is limestone, and the sub-soil is made up of till (EPA, 2024). The site shares this groundwater body with four of the Natura 2000 sites within the ZoI, excluding the North-West Irish Sea SPA, which is entirely marine based. The sub-soil has low permeability (GSI, 2024). The aquifer vulnerability of the site is low (Figure 6-2), and the bedrock is only moderately productive in local zones. It has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. A shallow zone of higher permeability may exist within the top few metres of more fractured/weathered rock, and higher permeability may also occur along fault zones. These zones may be able to provide larger ‘locally important’ supplies of water. In general, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres (GSI, 2017).

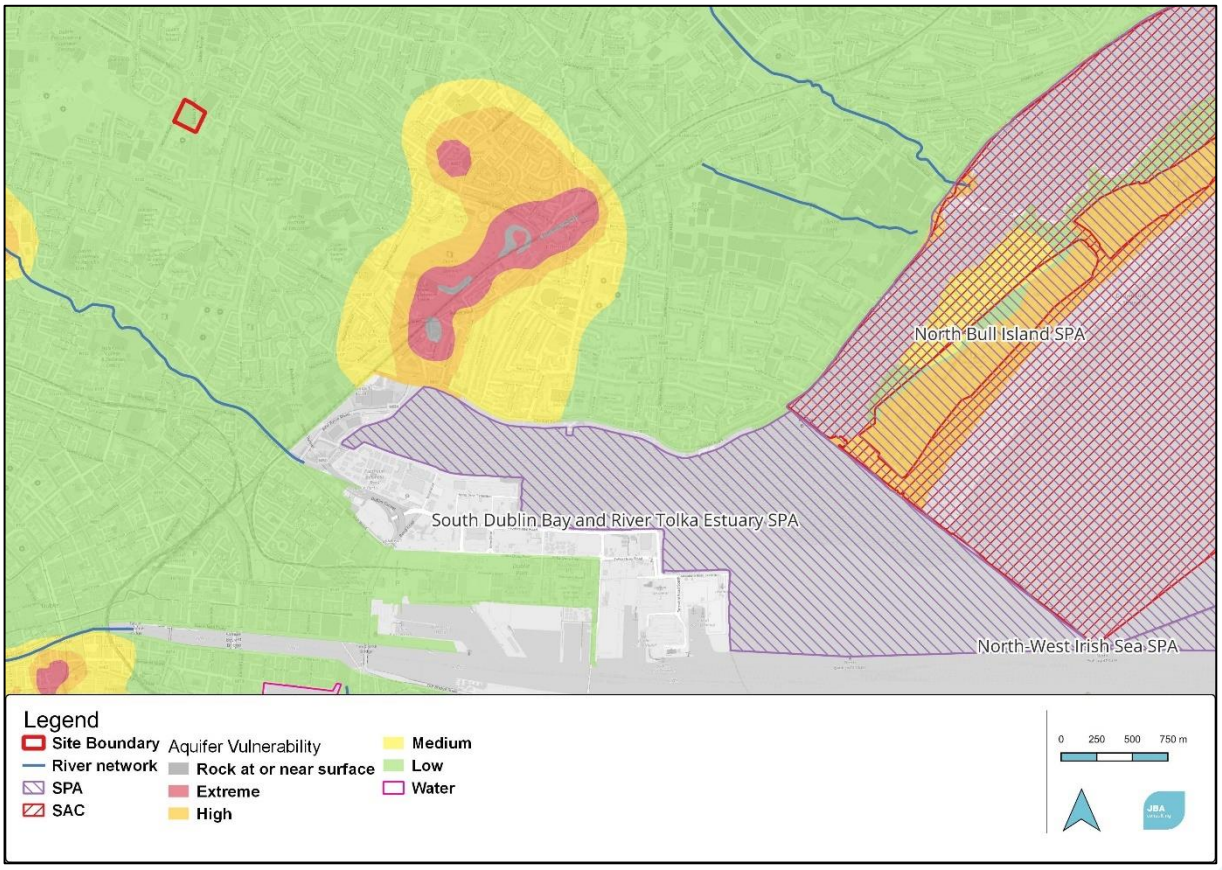

Figure 6-2: Aquifer vulnerability and Natura 2000 sites within ZoI (OSM, 2024).

North Dublin Bay SAC and South Dublin Bay SAC have qualifying interests (QI) which are groundwater dependent, namely Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] and Mediterranean salt meadows (*Juncetalia maritimi*) [1410]. These habitats are also associated with the QIs of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA, as these are important habitats for many of the birds. However, given that the proposed site is located in an urban setting at a distance of approximately 2.4km from the closest Natura 2000 site (South Dublin Bay and River Tolka Estuary SPA) where the sub-soil permeability of the site and the surrounding is low, and the aquifer vulnerability is low, negative impacts on the Natura 2000 sites are not anticipated during the construction phase.

Operational Phase

During the operation phase, potential pollutants will enter the existing sewer system and will not be able to infiltrate the groundwater, therefore, adverse impacts to any Natura 2000 site are not anticipated during the operational phase.

Therefore, likely significant effects via the groundwater pathway are not anticipated during the construction and operational phases of the proposed project given the distance to the Natura 2000 sites within the ZoI.

Regarding the groundwater-to-surface water impact pathway, the characteristics of groundwater body having low permeability and low vulnerability means that pollutants are unlikely to enter the local groundwater body via percolation. Due to the underlying

characteristics of the local aquifer, the low rate of pollutants that enter the groundwater body are likely to rapidly discharge to the nearby watercourses, i.e. the Tolka_060 (GSI, 2024). Therefore, there is a potential groundwater-to-surface water pathway within the locality of the proposed development. However, as discussed in the previous sub-section, likely significant effects are not anticipated via the surface water impact pathway given the large dilution.

Therefore, likely significant effects via the groundwater-to-surface water pathway are not anticipated during the construction and operational phases of the proposed project given the hydrological distance to the Natura 2000 sites within the ZoI.

6.2.4 Land Impact Pathways

The loss or degradation of supporting habitats within and outside the identified Natura 2000 sites via direct land-based impacts (e.g., physical habitat disturbance and/or loss) could have potential adverse impacts on a number of the QIs / SCIs associated with these Natura 2000 sites.

The proposed site is not considered to provide suitable ex-situ foraging habitat for wintering birds from the Natura 2000 sites. There are QI birds of the coastal SPAs that use terrestrial habitats include Light-bellied Brent Goose, Black-tailed Godwit, Bar-tailed Godwit, Herring Gull, and Black-headed Gull. Light-bellied Brent Goose prefer well maintained fields with low cut grass sward and have an affinity to feed on amenity grasslands such as in parks and pitches. Brent Goose were not recorded within the site during the site visits or bird surveys and the grassland on site was deemed to not be of suitable quality for Brent Goose. The grassland on site is not regularly maintained, thus overgrown with the presence of long grass and emerging scrubland. This type of habitat is not of ideal quality for the Light-bellied Brent Goose as they prefer well maintained fields with low cut grass sward. Black-tailed Godwit and Bar-tailed Godwit generally stay closer to the estuaries and there are no available resources for them within the project's site. Herring Gull, while was recorded flying above the site during multiple visits, was not seen landing within the site boundary. This was due to the absence of either foraging or supporting habitat exists within the site boundary for this species.

As such, due to unsuitable habitat on site, the foraging and roosting behaviour of these species, impacts via land pathways in terms of ex situ supporting habitats are not likely to have a significant effect on any of the Natura 2000 sites.

Bird flight lines

Light-bellied Brent Goose are known to feed on sites in the vicinity of the proposed development. Several of these sites are of high and major importance for Light-bellied Brent Goose (Scott Cawley, 2022), including Whitehall/Pairc Imearta located west of N1 ca 150m southwest of the subject site and Glasnevin/DCU Sports Grounds ca 1.5km west of the subject site.

The Light-bellied Brent Goose is a QI of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA. However, it is the population at North Bull Island (south end) that tend to use inland grassland sites in north Dublin.

The conservation objectives for the Light-bellied Brent Goose are "to maintain the favourable conservation condition" defined by population trend and distribution (NPWS 2015c, NPWS,

2015d). The condition of the Light-bellied Brent Goose is considered 'Favourable' and long-term trend is increasing.

The proposed development has been identified to be within the flight lines of Brent Goose to/from roost/feeding sites and has the potential to impact on their flight lines due to the introduction of proposed 6-8 story buildings within the site. However, survey results indicate that the Brent Goose did not fly over the site on a regular basis, the majority of the observations recorded the birds flying further south of the site and the number of birds flying over the site was low (less than 3% of the North Bull Island SPA population).

The estimated flight height over the site varied between 15-25m which is within the height of the proposed buildings (20.37-26.75m). The buildings may impact on Brent Goose trying to land on grasslands close to the proposed site, which is mainly lands of Clonturk Community College, as they fly lower when they prepare to land on a site. However, given the limited use of the fields at Conturk Community College (Brent Goose were only observed to forage on one occasion) and the low buildings to south of the site and open fields (GAA grounds) and low buildings to the north, the proposed development is not anticipated to have a significant impact on the QI Light-Bellied Brent Goose of any of the Natura 2000 sites.

Therefore, during the construction and operational phases of the proposed project, likely significant effects via the land impact pathway on the Natura 2000 sites within the ZoI are not anticipated.

6.2.5 Air Impact Pathways

The disturbance or environmental degradation of supporting habitats outside the identified Natura 2000 sites via air pollution impacts could have potential significant effects on a number of the QIs / SCIs associated with these Natura 2000 sites.

Visual and Audible Disturbance (QI /SCI Species)

While Herring Gull, a SCI species of the North-west Irish Sea SPA, was recorded during the site visit, they were seen flying overhead in low numbers and are a mobile species which can utilise habitats within the wider urban area. Brent Goose have been recorded flying in the vicinity of the site. However, there is no suitable foraging ground on site for geese, and they are not anticipated to be disturbed by visual or audible disturbance. Both these species are also resilient to urban noise disturbance and will likely not be impacted by the proposed works.

The nearest ex-situ areas where Brent Geese feed are at Whitehall/Pairc Imearta located west of N1 ca 150m southwest of the subject site and Glasnevin/DCU Sports Grounds ca 1.5km west of the subject site. These are on the other side of the busy N1 and will therefore not experience visual and audible disturbance from the proposed development.

Therefore, during the construction phases of the proposed project, likely significant effects via the air (disturbance) impact pathway are not anticipated for the SCI bird species of the SPA Natura 2000 sites.

Given the operational nature of the proposed project, likely significant effects via the air pathway (disturbance) are not anticipated during the operational phase.

Air Pollution (Emissions and Dust)

The ZoI for the air quality impact assessment will include all sensitive ecological receptors (QIs / SCIs and supporting habitats) within a distance of 250m of the proposed project during the construction phase.

Air (Chemical emissions)

Vehicle emissions can potentially impact the QIs /SCIs of the Natura 2000 sites within the ZoI. There will be a small increase in local traffic attending the site of the proposed development during construction, resulting in an increase in local NOx emissions, however, vehicular emissions are not anticipated to significantly impact the Natura 2000 sites due to the distance between proposed development and Natura 2000 sites or nearby ex -situ areas used by QI Brent Goose during sites construction and operational phases.

Therefore, likely significant effects from vehicular emissions via the air pathway are not anticipated during the construction and operational phases for the Natura 2000 sites and their respective QIs /SCIs.

Air (Dust Settlement)

Dust particles can be classified into those that are easily deposited and those that remain suspended in the air for extended periods. This division is useful as deposited dust is usually the coarse fraction of particulates that causes dust annoyance, whereas suspended particulate matter is implicated more in exposure impacts. Airborne particles have a broad range of diameters, from nano-particles and ultrafine particles (diameters less than 0.1 microns (µm) to the very large particles with diameters up towards 100µm. There is no clear dividing line between the sizes of suspended particulates and deposited particulates, although particles with diameters >50µm tend to be deposited quickly and particles of diameter <10 µm (PM10) have an extremely low deposition rate in comparison. Therefore the size of suspended and deposited dust particles affects their distribution and as such requires different approaches to sampling these fractions. PM10 is the fraction of airborne (suspended) particulates which contains particles of diameter less than 10µm. PM2.5 is the fraction of airborne (suspended) particulates which contains particles of diameter less than 2.5µm. PM10 is most commonly associated with road dust and construction activities. Wear and tear of brakes and tyres on vehicles and crushing activities at construction sites can all contribute to a rise in PM10. Larger particles (100µm diameter) are likely to settle within 5-10m of their source under a typical mean wind speed of 4-5 metres per second (m/s), and particles between 30-100 µm diameter are likely to settle within 100m of the source. Smaller particles, particularly those<10 µm in diameter, i.e., PM10, have a greater potential to have their settling rate impeded by atmospheric turbulence and to be transported further from their source.

Dust emissions are exacerbated by dry weather and high wind speeds. The impact of dust, therefore, also depends on the wind direction and the relative location of the dust source and receptor. The prevailing wind in the development's locality is south-westerly (Windfinder.com, 2024). While dust will be blow towards the North-West Irish Sea SPA, given the scale of the works involved in this development, the distance to the SPA and the urban setting of the proposed development also provides barriers, such as buildings and gardens, which will prevent further dispersal of particles, as will the marine setting of the Natura 2000

sites, notable volumes of dust are not anticipated to enter the Natura 2000 sites or near ex-situ habitats used by QI Brent Goose.

Therefore, due to the scale of the proposed development, likely significant effects via the air (dust) pathway are not anticipated during the construction and operational phases for the Natura 2000 sites, ex-situ habitats, and their respective QIs / SCIs.

6.2.6 Cumulative Impact

As the proposed project is not anticipated to have a likely significant effect on QIs / SCIs of the Natura 2000 sites within the ZoI; there is no potential for other plans or projects to act in combination with the proposed project to result in likely significant effects on Natura 2000 sites.

6.3 Summary

Due to the location of the proposed site and the scale of the works, and its distance to the Natura 2000 sites, the proposed project is not anticipated to have a likely significant effect via surface water, groundwater, groundwater-to-surface water, and land and air pathways to any Natura 2000 sites within the ZoI.

6.3.1 Description of likely direct, indirect, or secondary impacts of the project (either alone or in combination with other plans and projects) on the Natura 2000 sites

Project Elements	Comment
Size and scale	The original development consisted of 475 No. apartments and 1 No. café unit arranged in seven blocks and a separate purpose built creche facility. For clarity this is given below - followed by the description of the amended development. • Block A: a part 5 No. to part 8 No. storey over basement block containing 61 No. apartments comprised of 5 No. studio units, 19 No. one bedroom units, 30 No. two bedroom units and 7 No. three bedroom units, 1 No café unit (99 sq m) and a communal amenity space (250 sq m) including a reception area, meeting rooms and a lounge at ground floor level; the provision of a residents gym, yoga room and changing facilities (205 sq m) at basement level; and the provision of a sun lounge (56 sq m) and external garden terrace (75 sq m) at sixth floor level. • Block B: a part 5 No. to part 6 No. storey over basement block containing 78 No. apartments comprised of 15 No. studio units, 15 No. one bedroom units and 48 No. two bedroom units. • Block C: a part 4 No. to part 6 No. storey over basement block containing 54 No. apartments comprised of 22 No. one bedroom units, 31 No. two bedroom units and 1 No. three bedroom unit. • Block D: a part 7 No. to part 8 No. storey over basement block containing 76 No. apartments comprised of 36 No. one bedroom units, 39 No. two bedroom units and 1 No. three bedroom units. • Block E: a part 4 No. to part 8 No. storey over basement block containing 58 No. apartments comprised of 16 No. one bedroom units and 42 No. two bedroom units. • Block F: a 6 No. storey block containing 76 No. apartments comprised of 27 No. one bedroom units and 43 No. two bedroom units and 6 No. three bedroom units and a communal lounge at ground floor level (77 sq m). • Block G: a part 4 No. to part 6 No. storey over basement block

<table>
<tr><td></td><td>containing 72 No. apartments comprised of 6 No. studio units, 44 No. one bedroom units, 18 No. two bedroom units and 4 No. three bedroom units.
The subject scheme also included a 2 No. storey purpose built creche (c. 414 sq m) with an outdoor play area (c. 120 sq m); 348 No. car parking spaces comprised of 251 No. resident parking spaces at basement level, 54 No. resident parking spaces at surface level, 23 No. accessible parking spaces, 10 No. electric vehicle and car share spaces, 4 No. set-down spaces, 5 No. creche staff spaces and 1 No. café staff space; 11 No. motorcycle parking spaces; 527 No. bicycle parking spaces comprised of 480 No. secure cycle parking spaces and 47 No. visitor cycle parking spaces; hard and soft landscaping; public and private open spaces; bin storage; an ESB substation; and all other necessary associated site works above and below ground.
Amended development:
The proposed amendments include the replacement of the permitted basement with a semi-basement under blocks D, E and part of the communal open space. The amendments will result in an increase in height of blocks D, E, and B height, alteration to and reduction of the number of car parking spaces on site, alteration to the cycle parking locations, and changes to the open space layout. Amendments to the internal layout of Blocks A,B,C,D,& E resulting in the increase in the total number of units by 29 units, with an overall total of 334 units. There will be a total of 472 no. of apartments in the development.</td></tr>
<tr><td>Land-take</td><td>There will be no direct land take from any Natura 2000 sites.</td></tr>
<tr><td>Distance from Natura 2000 sites or key features of the site</td><td>
<table>
<tr><th>Natura 2000 site</th><th>Approximate direct distance</th><th>Approximate hydrological distance</th></tr>
<tr><td>South Dublin Bay and River Tolka Estuary SPA</td><td>2.4km</td><td>3.5km</td></tr>
<tr><td>North Bull Island SPA</td><td>4.6km</td><td>7.1km</td></tr>
<tr><td>North Dublin Bay SAC</td><td>4.6km</td><td>7.1km</td></tr>
<tr><td>South Dublin Bay SAC</td><td>5.2km</td><td>8.2km</td></tr>
<tr><td>North-West Irish Sea SPA</td><td>7.3km</td><td>9km</td></tr>
</table>
</td></tr>
<tr><td>Resource requirements (water abstraction etc.)</td><td>There will be no surface water nor groundwater abstraction on-site during operations.</td></tr>
<tr><td>Emissions (disposal to land, water or air)</td><td>Construction Phase:
Water
The proposed development does not have a direct hydrological link to the Natura 2000 sites, South Dublin Bay and Tolka Estuary SPA, North Bull Island SPA, North Dublin Bay SAC, South Dublin Bay SAC, and North-West Irish Sea SPA via the Tolka_060. In order for surface water to enter the Tolka_060, pollutants must either navigate approximately 1.4km of road surface, urban area, and green space alongside the existing surface drainage network present in North Dublin, or percolate through a groundwater body of low permeability and discharge into the River Tolka. In either case, in the unlikely event that pollutants reach the</td></tr>
</table>

	River Tolka, they would have to travel a further 2.4km to reach the nearest Natura 2000 site, where it would undergo a high degree of dilution within the watercourse. No likely significant effects are anticipated. **Air** Due to the scale of the proposed development and the distance from the proposed site to the Natura 2000 sites, likely significant effects via the air pathway (dust, emissions and disturbance) are not anticipated during the construction phase for the Natura 2000 sites, their respective QIs / SCIs, or on ex-situ habitat. Operation Phase: **Water** The design of the drainage system for the development, and proposed SuDs and attenuation measures, will reduce the quantity and improve the quality of water discharging into the existing public storm main. The measures will provide a minimum of two stage treatment train approach including interception and primary/ secondary treatment of surface water run-off. This treatment approach is in line with The CIRIA SuDS Manual C753. No likely significant effect from surface water drainage from the proposed development is anticipated during the operational phase of the site. The foul water drainage of the proposed site will connect with High Park and discharge into the North Dublin Drainage System (NDDS). Ultimately, the foul waste is treated at the Ringsend WWTP [D0034-01] which services the greater Dublin area. No likely significant effect from foul water drainage from the proposed development is anticipated during the operational phase of the site. **Air** Air-based operational emissions from the proposed development are not anticipated to have a likely significant effect on the QIs of the Natura 2000 sites within the ZoI.
Excavation requirements	The single level semi-basement structure will involve the excavation of approximately 5,302m^3 of material
Transportation requirements	Temporary Impacts: Levels of traffic to the site during the construction and operational phase will increase traffic to the site due to construction-based vehicles. Given the size and scale of the proposed project, transportation requirements are not anticipated to affect the SACs or

	SPAs within the ZoI. Permanent Impacts: Given the scale of the proposed project, transportation requirements will not negatively impact the Natura 2000 sites identified within the ZoI.
Duration of construction, operation, decommissioning etc.	The duration of the construction phase expected to take 36 months to complete. The operation is anticipated to be permanent.

6.3.2 Description of likely changes to the Natura 2000 sites

Potential Impact	Comments
Reduction of habitat area	There will be no temporary or permanent reduction in habitat area (including supporting ex-situ habitats) for any of the Natura 2000 sites.
Disturbance to key species	Temporary Impacts The construction works will temporarily increase the noise level and disturbance locally. Permanent Impacts No disturbance to key species is anticipated during operation of the project.
Habitat or species fragmentation	There will be no temporary or permanent habitat or species fragmentation within any Natura 2000 sites.
Reduction in species density	There will be no temporary or permanent reduction in species density within any Natura 2000 sites, or any QIs / SCIs of these sites.
Changes in key indicators of conservation value (water quality etc.)	There will be no temporary changes in key indicators of conservation value, specifically surface water quality.
Climate change	N/A

6.3.3 Description of likely impacts to the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	Interference with the key relationships that define the structure of the sites are not anticipated.
Interference with key relationships that define the function of the site	Interference with the key relationships that define the structure of the sites are not anticipated.

Provide indicators of significance as a result of identification of effects set out above in terms of:

Potential Impact	Indicators
Loss (Estimated percentage of lost area of habitat)	No Natura 2000 sites will experience a direct loss in habitat area.
Fragmentation	Fragmentation of habitat and/or species is not anticipated.
Disruption & disturbance	Disruption and/ or disturbance is not anticipated for QI / SCI species in Natura 200 sites or supporting ex-situ foraging habitats.
Change to key elements of the site (e.g., water quality etc.)	Potential temporary changes to key elements, e.g., water quality, are not anticipated.

6.3.4 Describe from the above elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is known.

Based upon best scientific judgement, no likely significant effects are expected from the elements mentioned above; and there are no elements where the scale or magnitude of impacts is unknown.

6.4 Concluding Statement

In carrying out this AA screening, mitigation measures have not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded that the possibility of any likely significant effects on any European Sites, whether arising from the project itself or in combination with other plans and projects, can be excluded beyond a reasonable scientific doubt on the basis of the best scientific knowledge available.

The assessment shows that the amendments to the permitted Strategic Housing Development [SHD Reg Ref 313289-22] do not result in any likely significant effects on any European Sites.

If any changes occur in the design of these works, a new Screening for Appropriate Assessment is required.

Appendices

A Proposed Site Plan- Ground Floor

FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. DO NOT SCALE.

ALL CONTRACTORS MUST VISIT THE SITE AND BE RESPONSIBLE FOR CHECKING ALL SETTING OUT DIMENSIONS AND NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY MANUFACTURE OR CONSTRUCTION WORK.

NOTES:

LEGEND

- APPLICATION SITE BOUNDARY (SITE AREA: 2.73 Hectare; 6.74 Acre)
- AREA EXCLUDED FROM AMMENDMENT APPLICATION
- ENTRY/EXIT
- APARTMENTS
- CIRCULATION
- CRECHE
- CRECHE PATIO
- CAFE
- AMENITY
- BIN
- BIKE
- BIN - STAGE AREA
- SWITCH ROOM & SUBSTATION
- LANDSCAPE
- PART M PARKING SPACES
- 00 RESIDENTIAL PARKING SPACES

1 SITE PLAN - GROUND FLOOR
1 : 500

Rev	Date	Description	Issued By
P04	19/07/2024	Site plan GF updated	CWO
P03	18/07/2024	Car parking updated	CWO
P02	03/07/2024	Site boundary updated	CWO
P01	25/06/2024	Draft Final LRD Application	CWO

Project Stage

Planning

Client:

EW Property Limited

Project:

Hartfield Place
Swords Road, Whitehall, Dublin 9
D9 C7F8

Drawing Title:

SITE PLAN - GROUND FLOOR

Drawn	Checked	Paper Size	Scale	Date
AB	AM	A1	As indicated @A1	25/06/2024

Project No.	Drawing No.	Classification	Revision
PE18138	0004		P04

File Name

PE18138-CWO-ZZ-00-DR-A-0004

Purpose Code

Issued for Information

Acceptance Code

S - Issued

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www.cwoarchitects.ie

Please consider the environment before printing this sheet

B Surface Water Drainage Layout

issued for
PLANNING

DIMENSIONS

Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.
Architects to be informed immediately of any discrepancies before work proceeds.

NOTES:

- Proposed Surface Water Network
- Existing Surface Water Network
- Right Of Way Area
- 150mm Dia. Filter Drain Through Permeable Paving
- Proposed Concrete Attenuation Tank
- Existing Concrete Attenuation Tank

REV	DATE	DETAILS
00	09/08/2024	Draft Issue

jor Joseph O'Reilly
Consulting Civil & Structural Engineers
Tel: 046 9077032 Fax: 046 9077932
Email: mail@jor.ie Web: www.jor.ie
Unit 1, St. Therese's Place, Flowerhill, Navan, Co. Meath

CLIENT
Eastwise Construction Swords Ltd.

TITLE
Surface Water Drainage Layout

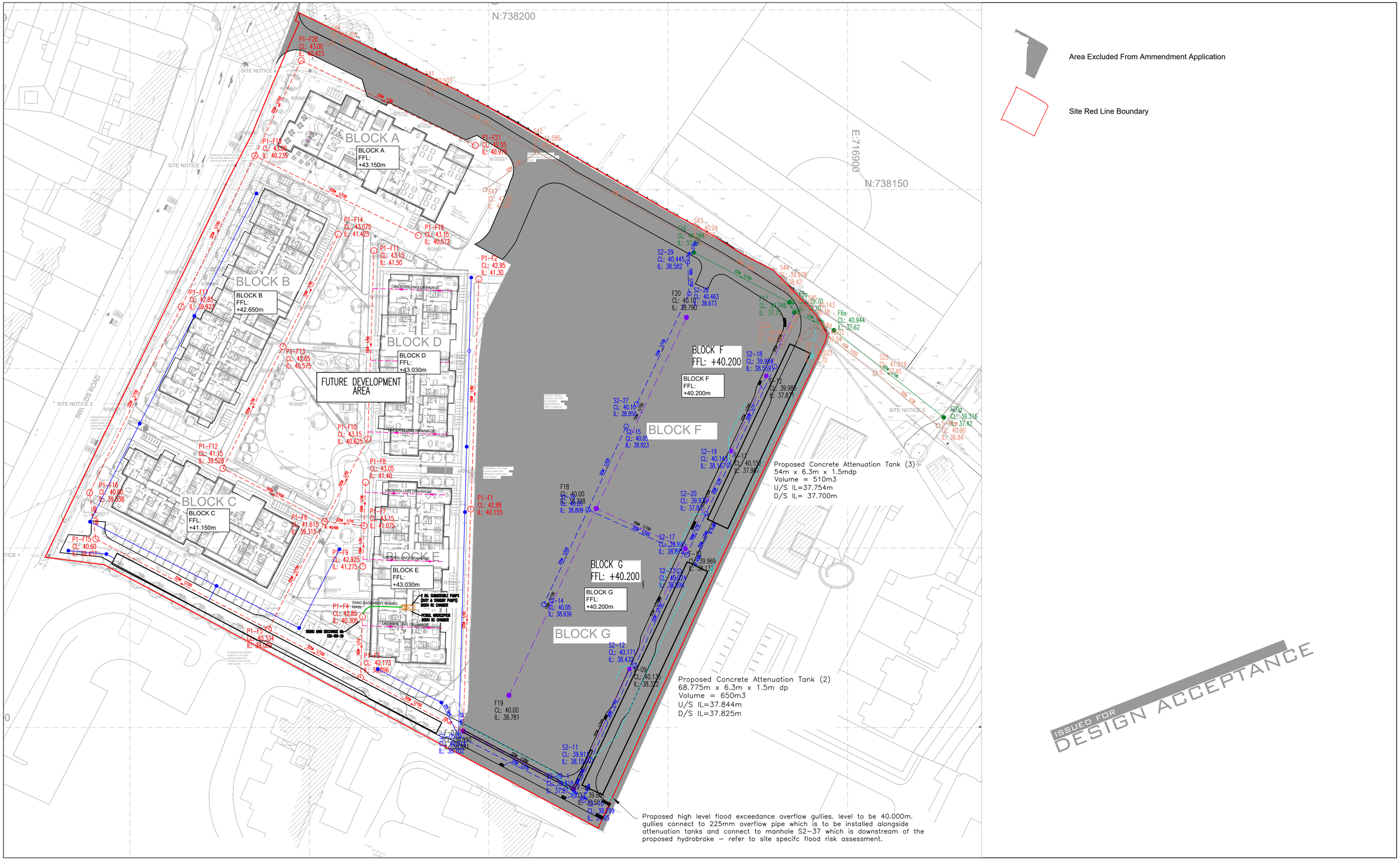
PROJECT
Hartfield Place, Swords Rd.
Whitehall, Dublin 9
D09 C7F8

SCALE	DATE CREATED	DRAWN BY:	DD
1:500 @ A1	Aug. 24	CHECKED BY:	PC

DRAWING No.
HARTPL-JOR-SM-ZZ-DR-C-0040

REV
00

C Waste Water Drainage Layout



DIMENSIONS

Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.
Architects to be informed immediately of any discrepancies before work proceeds.

NOTES:

- Proposed LRD Application Foul Network (SN8 UPVC Sewer Pipe)
- Existing Foul Network
- Proposed Foul Network Previously Approved Under: CDS1900796402/1900796401
- Right Of Way Area
- Foul With Concrete Protection

REV	DATE	DETAILS
01	08/08/2024	Issued As Per Irish Water Comments
00	26/07/2024	Issued For Design Acceptance

Joseph O'Reilly
Consulting Civil & Structural Engineers
Tel: 046 9077032 Fax: 046 9077932
Email: mail@jor.ie Web: www.jor.ie
Unit 1, St. Therese's Place, Flowerhill, Navan, Co. Meath

CLIENT: Eastwise Construction Swords Ltd.

TITLE: LRD Wastewater Layout

PROJECT: Hartfield Place, Swords Rd. Whitehall, Dublin 9 D09 C7F8

SCALE: 1:500 @ A1

DATE CREATED: July 24

DRAWN BY: DD

CHECKED BY: PC

DRAWING No.: HARTPL-JOR-SM-ZZ-DR-C-0050

REV: 01

D Protected species recorded within 5km of the site since 01/08/2014.

Species name	Date of last record	Designation
	Amphibians	
Common Frog *Rana temporaria*	27/03/2020	EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Smooth Newt *Lissotriton vulgaris*	06/04/2020	Protected Species: Wildlife Acts
	Birds	
Barnacle Goose *Branta leucopsis*	15/02/2015	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Barn Owl *Tyto alba*	06/03/2021	Protected Species: Wildlife Acts Birds of Conservation Concern - Red List
Black-headed Gull *Larus ridibundus*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Black-tailed Godwit *Limosa limosa*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Brent Goose *Branta bernicla*	30/11/2022	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Common Kingfisher *Alcedo atthis*	25/02/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Common Snipe *Gallinago gallinago*	15/03/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex II and III Birds of Conservation Concern - Amber List
Common Starling *Sturnus vulgaris*	31/08/2017	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Common Swift *Apus apus*	01/07/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List

Species name	Date of last record	Designation
Common Wood Pigeon *Columba palumbus*	16/01/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex II and III
Eurasian Curlew *Numenius arquata*	22/11/2020	Protected Species: Wildlife Acts EU Birds Directive >> Annex II Birds of Conservation Concern - Red List
Eurasian Oystercatcher *Haematopus ostralegus*	31/08/2017	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Eurasian Woodcock *Scolopax rusticola*	15/03/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex II and III Birds of Conservation Concern - Amber List
European Greenfinch *Carduelis chloris*	19/03/2023	Birds of Conservation Concern - Amber List
Herring Gull *Larus argentatus*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Red List
House Martin *Delichon urbicum*	31/08/2017	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
House Sparrow *Passer domesticus*	14/02/2016	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Great Black-backed Gull *Larus marinus*	15/03/2023	Protected Species: Wildlife Acts
Great Cormorant *Phalacrocorax carbo*	27/01/2022	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Grey Wagtail *Motacilla cinerea*	23/03/2023	Birds of Conservation Concern - Red List
Goldcrest *Regulus regulus*	21/03/2018	Birds of Conservation Concern - Amber List
Lesser Black-backed Gull *Larus fuscus*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Little Egret *Egretta garzetta*	17/07/2017	Protected Species: Wildlife Acts EU Birds Directive >> Annex I

Species name	Date of last record	Designation
Mallard *Anas platyrhynchos*	15/03/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex II and III
Mediterranean Gull *Larus melanocephalus*	15/03/2023	Protected Species: Wildlife Acts EU Birds Directive >> Annex I Birds of Conservation Concern - Amber List
Mew Gull *Larus canus*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Mute Swan *Cygnus olor*	04/12/2022	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Peregrine Falcon *Falco peregrinus*	15/08/2014	Protected Species: Wildlife Acts EU Birds Directive >> Annex I
Stock Pigeon *Columba oenas*	17/08/2021	Protected Species: Wildlife Acts Birds of Conservation Concern - Amber List
Yellowhammer *Emberiza citrinella*	15/03/2023	Protected Species: Wildlife Acts Birds of Conservation Concern - Red List
	Flora	
Green Field-speedwell *Veronica agrestis*	03/06/2023	Threatened Species: Near threatened
Strawberry-tree *Arbutus unedo*	29/11/2021	Threatened Species: Near threatened
	Invertebrates	
Large Red Tailed Bumble Bee *Bombus (Melanobombus) lapidarius*	22/07/2023	Threatened Species: Near threatened
Megachile (Megachile) centuncularis	31/07/2022	Threatened Species: Near threatened
Moss Carder-bee *Bombus (Thoracombus) muscorum*	14/06/2023	Threatened Species: Near threatened
Small Heath *Coenonympha pamphilus*	24/05/2020	Threatened Species: Near threatened
	Liverworts	
Dilated Scalewort *Frullania dilatata*	06/03/2018	Threatened Species: Least concern
Forked Veilwort *Metzgeria furcata*	06/03/2018	Threatened Species: Least concern
	Moss	
Lateral Cryphaea *Cryphaea heteromalla*	06/03/2018	Threatened Species: Least concern
Supine Plait-moss *Hypnum cupressiforme var. resupinatum*	06/03/2018	Threatened Species: Least concern

Species name	Date of last record	Designation
Terrestrial Mammals		
Brown Long-eared Bat *Plecotus auritus*	11/08/2017	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Common Pipistrelle *Pipistrellus pipistrellus sensu stricto*	07/06/2021	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Daubenton's Bat *Myotis daubentonii*	30/08/2021	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Eurasian Badger *Meles meles*	04/04/2018	Protected Species: Wildlife Acts
Eurasian Red Squirrel *Sciurus vulgaris*	02/08/2017	Protected Species: Wildlife Acts
Irish Hare *Lepus timidus* subsp. *hibernicus*	04/12/2022	Protected Species: Wildlife Acts
Irish Stoat *Mustela erminea* subsp. *hibernica*	26/02/2016	Protected Species: Wildlife Acts
Lesser Noctule *Nyctalus leisleri*	06/06/2021	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Natterer's Bat *Myotis nattereri*	06/06/2021	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Pipistrelle *Pipistrellus pipistrellus sensu lato*	21/11/2022	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Soprano Pipistrelle *Pipistrellus pygmaeus*	07/06/2021	EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
West European Hedgehog *Erinaceus europaeus*	17/08/2023	Protected Species: Wildlife Acts

E Invasive species recorded within 5km of site since 01/08/2024

Species name	Date of last record	Designation
	Birds	
Rose-ringed Parakeet *Psittacula krameri*	28/09/2021	High Impact Invasive Species
	Flatworm	
Arthurdendyus triangulatus	20/07/2016	High Impact Invasive Species
	Flora	
American Skunk-cabbage *Lysichiton americanus*	29/03/2019	Medium Impact Invasive Species EU Regulation No. 1143/2014 Regulation S.I. 477 (Ireland)
Brazilian Giant-rhubarb *Gunnera manicata*	29/03/2019	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Butterfly-bush *Buddleja davidii*	17/07/2023	Medium Impact Invasive Species
Cherry Laurel *Prunus laurocerasus*	29/11/2021	High Impact Invasive Species
Common Broomrape *Orobanche minor*	18/07/2018	Medium Impact Invasive Species
Giant Hogweed *Heracleum mantegazzianum*	01/08/2023	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Himalayan Honeysuckle *Leycesteria formosa*	04/09/2023	Medium Impact Invasive Species
Indian Balsam *Impatiens glandulifera*	01/07/2023	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Japanese Knotweed *Fallopia japonica*	29/11/2021	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Narrow-leaved Ragwort *Senecio inaequidens*	13/08/2018	Medium Impact Invasive Species
Sea-buckthorn *Hippophae rhamnoides*	29/11/2021	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Spanish Bluebell *Hyacinthoides hispanica*	06/05/2018	Regulation S.I. 477 (Ireland)
Sycamore *Acer pseudoplatanus*	13/08/2018	Medium Impact Invasive Species
Three-cornered Garlic *Allium triquetrum*	11/05/2022	Medium Impact Invasive Species Regulation S.I. 477 (Ireland)
Traveller's-joy *Clematis vitalba*	12/05/2016	Medium Impact Invasive Species
Wild Parsnip *Pastinaca sativa*	23/08/2016	Medium Impact Invasive Species

Species name	Date of last record	Designation
	Invertebrates	
Harlequin Ladybird *Harmonia axyridis*	15/06/2024	High Impact Invasive Species Regulation S.I. 477 (Ireland)
	Reptiles	
Red-eared Terrapin *Trachemys scripta*	19/04/2021	Medium Impact Invasive Species EU Regulation No. 1143/2014
	Terrestrial Mammals	
American Mink *Mustela vison*	16/08/2020	High Impact Invasive Species Regulation S.I. 477 (Ireland)
Eastern Grey Squirrel *Sciurus carolinensis*	01/02/2023	High Impact Invasive Species EU Regulation No. 1143/2014 Regulation S.I. 477 (Ireland)
European Rabbit *Oryctolagus cuniculus*	02/12/2015	Medium Impact Invasive Species
Fallow Deer *Dama dama*	04/12/2022	High Impact Invasive Species Regulation S.I. 477 (Ireland) Protected Species: Wildlife Acts
House Mouse *Mus musculus*	20/01/2017	High Impact Invasive Species

References

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DoHPLG (2018). River Basin Management Plan for Ireland 2018 -2021. Department of Housing, Planning and Local Government.

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