APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

PROPOSED DEVELOPMENT

AT

FORMER CHADWICKS SITE,
GREENHILLS ROAD,
WALKINSTOWN, DUBLIN 12

ON BEHALF OF

Steeplefield Limited

Prepared by
Enviroguide Consulting

Dublin
3D Core C, Block 71, The Plaza,
Park West, Dublin 12

Kerry
19 Henry Street
Kenmare, Co. Kerry

Wexford
M10 Wexford Enterprise
Centre, Strandfield Business
Park, Rosslare Road, Wexford

www.enviroguide.ie
info@enviroguide.ie
+353 1 565 4730

DOCUMENT CONTROL SHEET

Client	Steeplefield Limited
Project Title	Proposed Development at Former Chadwicks Site, Greenhills Road, Walkinstown, Dublin 12
Document Title	Appropriate Assessment Screening Report

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
1.0	Draft for internal Review	Shannen O'Brien *Project Ecologist*	Siobhán Atkinson *Ecologist*	-	20/04/2021
2.0	Draft for Client	Shannen O'Brien *Project Ecologist*	Jim Dowdall *Director*	Jim Dowdall *Director*	04/05/2021
3.0	Draft for Client	Shannen O'Brien *Project Ecologist*	Siobhán Atkinson *Ecologist*	Jim Dowdall *Director*	10/05/2021
4.0	Draft for Client	Shannen O'Brien *Project Ecologist*	Colin Lennon *Technical Director*	Colin Lennon *Technical Director*	31/01/2022
5.0	Final	Shannen O'Brien *Project Ecologist*	Colin Lennon *Technical Director*	Colin Lennon *Technical Director*	16/02/2022

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

REPORT LIMITATIONS

Synergy Environmental Ltd. t/a Enviroguide Consulting (hereafter referred to as "Enviroguide") has prepared this report for the sole use of Steeplefield Limited in accordance with the Agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by Enviroguide.

The information contained in this Report is based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by Enviroguide has not been independently verified by Enviroguide, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by Enviroguide in providing its services are outlined in this Report.

The work described in this Report is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

All work carried out in preparing this report has used, and is based upon, Enviroguide's professional knowledge and understanding of the current relevant national legislation. Future changes in applicable legislation may cause the opinion, advice, recommendations or conclusions set-out in this report to become inappropriate or incorrect. However, in giving its opinions, advice, recommendations and conclusions, Enviroguide has considered pending changes to environmental legislation and regulations of which it is currently aware. Following delivery of this report, Enviroguide will have no obligation to advise the client of any such changes, or of their repercussions.

Enviroguide disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to Enviroguide's attention after the date of the Report.

Certain statements made in the Report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the Report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. Enviroguide specifically does not guarantee or warrant any estimate or projections contained in this Report.

Unless otherwise stated in this Report, the assessments made assume that the site and facilities will continue to be used for their current or stated proposed purpose without significant changes.

The content of this report represents the professional opinion of experienced environmental consultants. Enviroguide does not provide legal advice or an accounting interpretation of liabilities, contingent liabilities or provisions.

If the scope of work includes subsurface investigation such as boreholes, trial pits and laboratory testing of samples collected from the subsurface or other areas of the site, and environmental or engineering interpretation of such information, attention is drawn to the fact that special risks occur whenever engineering, environmental and related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing programme implemented in accordance with best practice and a professional standard of care may fail to detect certain conditions. Laboratory testing results are not independently verified by Enviroguide and have been assumed to be accurate. The environmental, ecological, geological, geotechnical, geochemical and hydrogeological conditions that Enviroguide interprets to exist between sampling points may differ from those that actually exist. Passage of time, natural occurrences and activities on and/or near the site may substantially alter encountered conditions.

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Steeplefield Limited to undertake a screening for Appropriate Assessment (AA) in relation to the Proposed Development at the Former Chadwicks Site, Greenhills Road, Walkinstown, Dublin 12. This report contains information to enable the Competent Authority to undertake Stage 1 Appropriate Assessment screening in respect of the Proposed Development.

1.2 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs). Natura 2000 sites together within candidate SACs and candidate SPAs are known as European Sites. It is the responsibility of each member state to designate SPAs and SACs. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

An 'Appropriate Assessment' (AA) is an obligation that derives from Article 6(3) and 6(4) of the Habitats Directive, involving a number of steps and tests that need to be applied in sequential order. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, and based on best scientific knowledge, is likely to have significant effects on a European Site, in view of its conservation objectives.

This AA Screening has been undertaken to determine the potential for significant effects on relevant European Sites. The purpose of this assessment is to determine, the appropriateness, or otherwise, of the Proposed Development in the context of the conservation objectives of such sites.

1.2.1 Legislative Context

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a European Site. Paragraph 3 states that:

"*6(3) 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."*

These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended ("the 2000 Act"), and in particular Section 177U and Section 177V thereof. The relevant provisions of Section 177U in relation to AA screening have been set out below:

"***177U.—*** *(1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European Site.*

(2) …

(3) …

(4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European Site.

(5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European Site."

1.2.2 Stages of AA

This Appropriate Assessment Screening Report (the "**Screening Report**") has been prepared by Enviroguide Consulting. It considers whether the Proposed Development is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required.

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

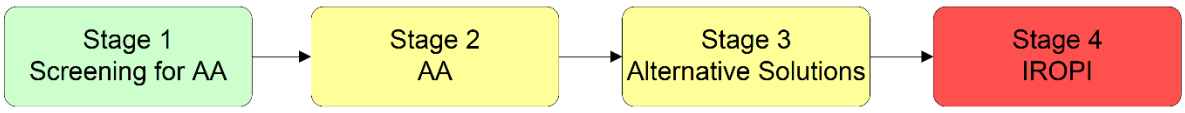

FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

The four stages of an AA, can be summarised as follows:

- Stage 1 *Screening* addresses:
  - whether a plan or project is directly connected to or necessary for the management of the site, or

  - whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European Site in view of its conservation objectives.
- Stage 2: *Natura Impact Statement (NIS)*. The second stage of the AA process assesses the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the European Site, having regard to the conservation objectives of the site and its ecological structure and function. A NIS must provide the objective scientific information to enable the competent authority to carry out an appropriate assessment of the proposed development. It should describe any mitigation measures to avoid and reduce significant negative impacts.
- Stage 3: *Assessment of alternative solutions*. If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain.* The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European Site, where no less damaging solution exists.

2 METHODOLOGY

2.1 Guidance

This AA Screening Report has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision),
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10,
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001),
- *Communication from the Commission on the precautionary principle* (European Commission, 2000),
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021), and,
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021.*

2.2 Screening Steps

Screening for AA involves the following steps:

- Establish whether the plan or project is directly connected with or necessary for the management of a European Site,
- Description of the plan or project and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European Site,
- Identification of European Sites potentially affected,
- Identification and description of potential effects on the European Site,
- Assessment of the likely significance of the effects identified on the European Site, and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

2.3 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources relevant for the completion of this Screening Report. The desktop study relied on the following sources:

- Information on the network of European Sites, boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at *www.npws.ie*,
- Text summaries of the relevant European Sites taken from the respective Standard Data Forms and Site Synopses available at *www.npws.ie*,
- Information on species records and distributions, obtained from the National Biodiversity Data Centre (NBDC) at *www.maps.biodiversityireland.ie*,
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at *www.gis.epa.ie*,
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at *www.gsi.ie*,
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland,
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the Proposed Development available at the National Planning Application Database and South Dublin County Council.

For a complete list of the specific documents consulted as part of this assessment, see *Section 5 References*.

2.4 Field Surveys

Ecological surveys of the Site of the Proposed Development were carried out by Enviroguide Senior Ecologist Dr Siobhán Atkinson on the 23rd of April 2021, and a breeding bird survey was undertaken by Enviroguide Senior Ornithologist Eric Dempsey on the 21st of April 2021. Aisling Walsh of Ash Ecology & Environmental Ltd (AEE) carried out a bat survey of the Site on the 21st of April 2021 and the 1st of March 2022. The results of these surveys can be found within the corresponding Biodiversity Chapter of the Environmental Impact Assessment Report prepared by Enviroguide.

2.5 Assessment of Significant Effects

The potential for significant effects that may arise from the Proposed Development were considered through the use of key indicators, namely:

- Habitat loss or alteration
- Habitat/species fragmentation
- Disturbance and/or displacement of species
- Changes in population density
- Changes in water quality and resource

In addition, information pertaining to the conservation objectives of the European Sites, the ecology of the designated habitats and species and known or perceived sensitivities of the habitats and species were considered.

3 STAGE 1 SCREENING

3.1 Management of European Sites

The Proposed Development is not directly connected with or necessary to the management of European Sites.

3.2 Description of Proposed Development

3.2.1 Site location

The Site of the Proposed Development, as shown in Figure 2, is 0. 2.75ha, located within an industrial estate on Former Chadwicks Site, Greenhills Road, Walkinstown, Dublin 12. The Site currently contains derelict warehouse units, and is bounded on the north by Greenhills Road, and the eastern, southern, and western boundaries are abutted by industrial buildings. The surrounding landscape is predominantly urban in nature.

3.2.2 Description of Development

The Proposed Development will consist of the following:

(i) The demolition of the former Chadwicks Builders Merchant development comprising 1 no. two storey office building and 9 no. storage/warehouse buildings ranging in height from 3 m – 9.9 m as follows: Building A (8,764 sq.m.), Building B (1,293 sq.m.), Building C (two-storey office building) (527 sq.m.), Building D (47 sq.m.), Building E (29 sq.m.), Building F (207 sq.m.), Building G (101 sq.m.), Building H (80 sq.m.), Building I (28 sq.m.), and Building J (44 sq.m.), in total comprising 11,120 sq.m.;

(ii) the construction of a mixed-use Build-to-Rent residential and commercial development comprising 633 no. build-to-rent apartment units (292 no. one-beds, 280 no. two-beds and 61 no. three-beds), 1 no. childcare facility and 10 no. commercial units in 4 no. blocks (A-D) ranging in height from 5 to 12 storeys as follows:

(a) Block A comprises 209 no. apartments (102 no. 1 bed-units, 106 no. 2 bed-units and 1 no. 3-bed units) measuring 5 - 10 storeys in height. (b) Block B comprises 121 no. apartments (53 no. 1 bed-units, 45 no. 2 bed-units and 23 no. 3 bed-units) measuring 8 - 10 storeys in height. (c) Block C comprises 130 no. apartments (38 no. 1-bed units, 71 no. 2-bed units and 21 no. 3-bed units) measuring 8 - 12 storeys in height. (d) Block D comprises 173 no. apartments (99 no. 1 bed-units, 58 no. 2 bed-units and 16 no. 3 bed-units) measuring 6 - 10 storeys in height. All apartments will be provided with private balconies/ terraces;

(iii) provision of indoor communal residential amenity/management facilities including a co-working space, communal meeting room/ work space, foyer, toilets at ground floor of Block A; gym, changing rooms, toilets, resident's lounge, studio, laundry room, communal meeting room/ work space, multi-function space with kitchen at ground floor of Block B; games room with kitchenette, media room, co-working space, resident's lounge, communal meeting room/ work space, reception area, management office with ancillary staff room and toilets, toilets, parcel room at ground floor of Block C;

(iv) the construction of 1 no. childcare facility with dedicated outdoor play area located at ground floor of Block A;

(v) the construction of 8 no. commercial units at ground floor level of Blocks A, B and D, and 2 no. commercial units at second floor level (fronting Greenhills Road) of Block C as follows: Block A has 3 no. units at ground floor comprising 79.46 sq.m., 90.23 sq.m., and 121.39 sq.m., Block B has 1 no. unit at ground floor comprising 127.03 sq.m., Block C has two units at second floor comprising 120.85 sq.m. and 125.45 sq.m., and Block D has 4 no. units at ground floor comprising 84.45 sq.m., 149.77 sq.m., 155.48 sq.m. and 275.59 sq.m.;

(vi) the construction of 3 no. vehicular entrances; a primary entrance via vehicular ramp from the north (access from Greenhills Road) and 2 no. secondary entrances from the south for emergency access and services (access from existing road to the south of the site) with additional pedestrian accesses proposed along Greenhills Road;

(vii) provision of 424 no. car parking spaces comprising 398 no. standard spaces, 21 no. mobility spaces and 5 no. car club spaces located at ground floor level car park located within Block A and accessed via the proposed entrance at Greenhills Road, a two-storey car park located within Blocks C and D also accessed from the proposed entrance at Greenhills Road and on-street parking at ground floor level adjacent to Blocks A and C. Provision of an additional 15 no. commercial/ unloading/ drop-off on-street parking spaces at ground floor level (providing for an overall total of 439 car parking spaces). Provision of 4 no. dedicated motorcycle spaces at ground floor level parking area within Blocks C and D;

(viii) provision of 1363 no. bicycle parking spaces comprising 1035 no. residents' bicycle spaces, 5 no. accessible bicycle spaces and 7 no. cargo bicycle spaces in 9 no. bicycle storerooms in ground and first floor parking areas within Blocks A, C and D, and 316 no. visitors' bicycle spaces located externally at ground floor level throughout the development;

(ix) provision of outdoor communal amenity space (5,020 sq.m.) comprising landscaped courtyards that include play areas, seating areas, grass areas, planting, and scented gardens located on podiums at first and second floor levels; provision of a communal amenity roof garden in Block C with seating area and planting (176 sq.m.); and inclusion of centrally located public open space (3,380 sq.m.) adjacent to Blocks B and C comprising grassed areas, planting, seating areas, play areas, water feature, flexible use space; and incidental open space/public realm;

(x) development also includes landscaping and infrastructural works, foul and surface water drainage, bin storage, ESB substations, plant rooms, boundary treatments, internal roads, cycle paths and footpaths and all associated site works to facilitate the development.

This application is accompanied by an Environmental Impact Assessment Report (EIAR).

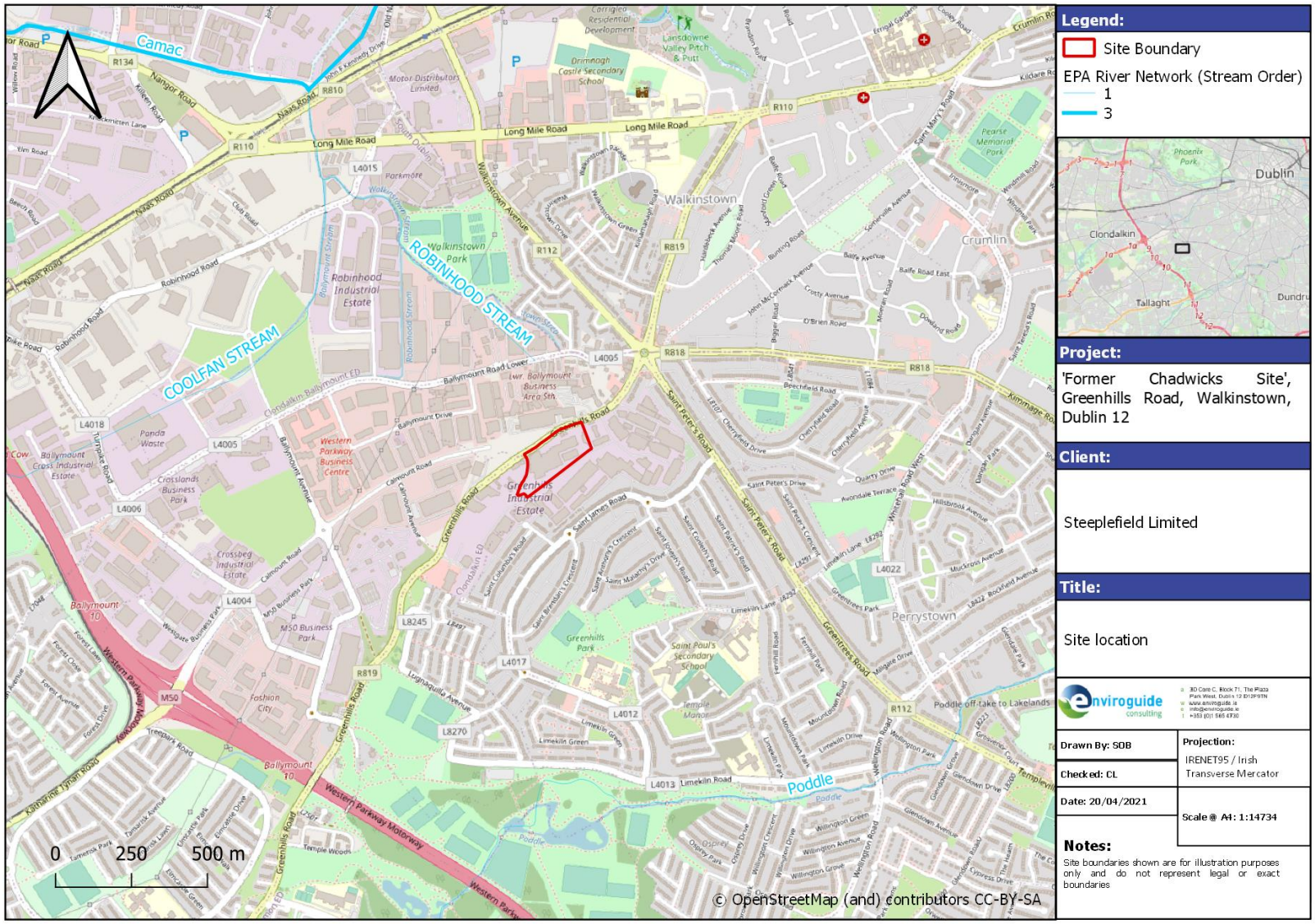

FIGURE 2. SITE LOCATION

FIGURE 3. PROPOSED SITE LAYOUT (C+W O'BRIEN ARCHITECTS).

3.3 Existing Environment

3.3.1 Geology, Hydrology and Hydrogeology

The Site of the Proposed Development is within the *Liffey and Dublin Bay* catchment and *Liffey_SC_090* sub catchment. The closest watercourse to the Site is the Robinhood Stream approximately 270m to the north, which flows into the River Camac, laying almost 1.4km north, and was designated as *Poor* by the EPA in 2019 (station code: RS09C020500). The next closest watercourse to the Site is the River Poddle, located approximately 930m south of the Site. This river was assigned *Poor* status by the EPA in 2007 (station code: RS09P030400). Both the River Poddle and River Camac flow into the River Liffey, and ultimately into Dublin Bay.

The Site is situated on the Dublin groundwater body, which is *Not At Risk* of not meeting its WFD objectives. The aquifer type within the Site boundary is a *Locally Important* (LI) aquifer on bedrock which is *Moderately Productive in Local Zones Only*. The groundwater rock units underlying the aquifer are classified as *Dinantian Upper Impure Limestones* (GSI, 2022). The level of vulnerability of the Site to groundwater contamination via human activities is *Moderate*/*High*. The soil is classified as *Urban* and the subsoil is made ground (*Made*) (EPA, 2022).

3.4 Identification of Relevant European Sites

In order to identify the European Sites that potentially lie within the Zone of Influence (ZOI) of the Proposed Development, a Source-Path-Receptor method (S-P-R) was adopted, as described in 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021), a practice note produced by the Office of the Planning Regulator, Dublin. This note was published to provide guidance on screening for appropriate assessment (AA) during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Appropriate Assessment Screening Reports such as this.

The guidance document published by the Department of Housing, Planning and Local Government (then DEHLG) 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' (2009) recommends an arbitrary distance of 15km as the precautionary ZOI for a plan or project being assessed for likely significant effects on European Sites, stating however that this should be evaluated on a case-by-case basis.

As such, the 15km ZOI is used in this report as an initial starting point for collating European Sites for AA Screening. For this AA Screening, all European Sites within 15km of the Proposed Development are included, and it is considered no viable pathways exist to any European Sites outside the 15km limit, particularly in light of the dilution factor of Dublin Bay and the Irish Sea.

The methodology used to identify relevant European Sites comprised the following:

- Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) to identify European Sites which could potentially be affected by the Proposed Development;

- The catchment data were used to establish or discount potential hydrological connectivity between the Project Boundary and any European Sites.
- All European Sites within the zone of influence (within 15km of the Proposed Development Site) were identified and are shown in Figure 4.
- The potential for connectivity with European Sites at distances greater than 15km from the Proposed Development was also considered in this initial assessment. In this case, there is no potential connectivity between the Proposed Development Site and European Sites located at a distance greater than 15km from the Proposed Development based on the S-P-R model.
- Table 1 provides details of all relevant European Sites as identified in the preceding steps. The potential for pathways between European Sites and the Proposed Development Site was assessed on a case-by-case basis using the Source-Pathway-Receptor framework as per the OPR Practice Note PN01 (March 2021). Those European Sites where a pathway has been identified are highlighted in green. Pathways considered included:
    a. Direct pathways (e.g., proximity (i.e., location within the European Site), water bodies, air (for both air emissions and noise impacts).
    b. Indirect pathways (e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species.
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report.
- There is absolutely no reliance placed in this Appropriate Assessment Screening Report on measures intended to avoid/reduce harmful effects on the European Sites.

The result of this preliminary screening concluded that there is a total of six SACs and three SPAs located within the ZOI of the Proposed Development Site. The distances to each site listed are taken from the nearest possible point of the Proposed Development Site boundary to the nearest possible point of each European Site.

Potential pathways between the Proposed Development Site and four European Sites within the ZOI was identified. The European Sites linked to the Proposed Development are:

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

TABLE 1. EUROPEAN SITES WITHIN THE 15KM PRECAUTIONARY ZONE OF INFLUENCE OF THE PROPOSED DEVELOPMENT AND POTENTIAL PATHWAYS BETWEEN THEM. THOSE EUROPEAN SITES FOR WHICH A S-P-R LINK WAS IDENTIFIED ARE HIGHLIGHTED IN GREEN.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Special Areas of Conservation (SAC)			
Glenasmole Valley SAC (001209)	[6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (* important orchid sites)* ; [6410] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae); [7220] Petrifying springs with tufa formation (Cratoneurion)*	6.3 km	**None** – There is no hydrological connection. In addition, the intervening distance between the Site and the SAC is sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
South Dublin Bay SAC (000210)	[1140] Mudflats and sandflats not covered by seawater at low tide; [1210] Annual vegetation of drift lines; [1310] Salicornia and other annuals colonising mud and sand; [2110] Embryonic shifting dunes	8.4 km	**Yes** – Weak hydrological pathway via surface water discharges to the River Camac both the Construction and Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.
Wicklow Mountains SAC (002122)	[3110] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*); [3160] Natural dystrophic lakes and ponds; [4010] Northern Atlantic wet heaths with *Erica tetralix;* [4030] European dry heaths; [4060] Alpine and Boreal heaths; [6130] Calaminarian grasslands of the *Violetalia calaminariae*; [6230] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe); [7130] Blanket bogs (* if active bog); [8110] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*); [8210] Calcareous rocky slopes with chasmophytic vegetation; [8220] Siliceous rocky slopes with chasmophytic vegetation; [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; [1355] *Lutra lutra* (Otter)	8.8 km	**None** – There is no hydrological connection. In addition, the intervening distance between the Site and the SAC is sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Rye Water Valley/Carton SAC (001398)	[7220] Petrifying springs with tufa formation (Cratoneurion); [1014] *Vertigo angustior* (Narrow-mouthed Whorl Snail); [1016] *Vertigo moulinsiana* (Desmoulin's Whorl Snail)	11.4 km	**None** – There is no hydrological connection. In addition, the intervening distance between the Site and the SAC is sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
North Dublin Bay SAC (000206)	[1140] Tidal Mudflats and Sandflats; [1210] Annual Vegetation of Drift Lines; [1310] Salicornia Mud; [1330] Atlantic Salt Meadows; [1410] Mediterranean Salt Meadows; [2110] Embryonic Shifting Dunes; [2120] Marram Dunes (White Dunes); [2130] Fixed Dunes (Grey Dunes)*; [2190] Humid Dune Slacks; [1395] Petalwort (*Petalophyllum ralfsii*)	11.4 km	**Yes** – Weak hydrological pathway via surface water discharges to the River Camac both the Construction and Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.
Knocksink Wood SAC (000725)	[7220] Petrifying springs with tufa formation (Cratoneurion); [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)	14.0 km	**None** – There is no hydrological connection. In addition, the intervening distance between the Site and the SAC is sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
Special Protected Area (SPA)			
South Dublin Bay and River Tolka	[A046] Light-bellied Brent Goose *Branta bernicla hrota ;* [A130] Oystercatcher *Haematopus ostralegus ;* [A137] Ringed Plover *Charadrius hiaticula ;* [A141] Grey Plover *Pluvialis squatarola ;* [A143] Knot *Calidris*	8.5 km	**Yes** – Weak hydrological pathway via surface water discharges to the River Camac both the Construction and

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Estuary SPA (004024)	*canutus* **;** [A144] Sanderling *Calidris alba* **;** [A149] Dunlin *Calidris alpina alpina* **;** [A157] Bar-tailed Godwit *Limosa lapponica ;* [A162] Redshank *Tringa tetanus ;* [A179] Black-headed Gull *Chroicocephalus ridibundus* **;** [A192] Roseate Tern *Sterna dougallii ;* [A193] Common Tern *Sterna hirundo* **;** [A194] Arctic Tern *Sterna paradisaea* **;** [A999] Wetlands and Waterbirds		Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.
Wicklow Mountains SPA (004040)	[A098] Merlin *Falco columbarius*; [A103] Peregrine *Falco peregrinus*	8.7 km	**None** – There is no hydrological connection. In addition, the intervening distances between the Site and the SPA is sufficient to exclude the possibility of significant effects on the SPAs arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase. The Site does not provide significant *ex-situ* habitat for QI/SCI species within the Site of the Proposed Development.
North Bull Island SPA (004006)	[A046] Light-bellied Brent Goose *Branta bernicla hrota***;** [A048] Shelduck *Tadorna tadorna*; [A052] Teal *Anas crecca;* [A054] Pintail *Anas acuta ;* [A056] Shoveler *Anas clypeata;* [A130] Oystercatcher *Haematopus ostralegus;* [A140] Golden Plover *Pluvialis apricaria;* [A141] Grey Plover *Pluvialis squatarola;* [A143] Knot *Calidris canutus;* [A144] Sanderling *Calidris alba;* [A149] Dunlin *Calidris alpina alpine;* [A156] Black-tailed Godwit *Limosa limosa;* [A157] Bar-tailed Godwit *Limosa lapponica;* [A160] Curlew *Numenius arquata;* [A162] Redshank *Tringa tetanus;* [A169] Turnstone *Arenaria interpres;* [A179] Black-headed Gull *Chroicocephalus ridibundus;* [A999] Wetlands and Waterbirds	11.4 km	**Yes** – Weak hydrological pathway via surface water discharges to the River Camac both the Construction and Operational Phases and discharges from Ringsend WwTP into Dublin Bay during the Operational Phase.

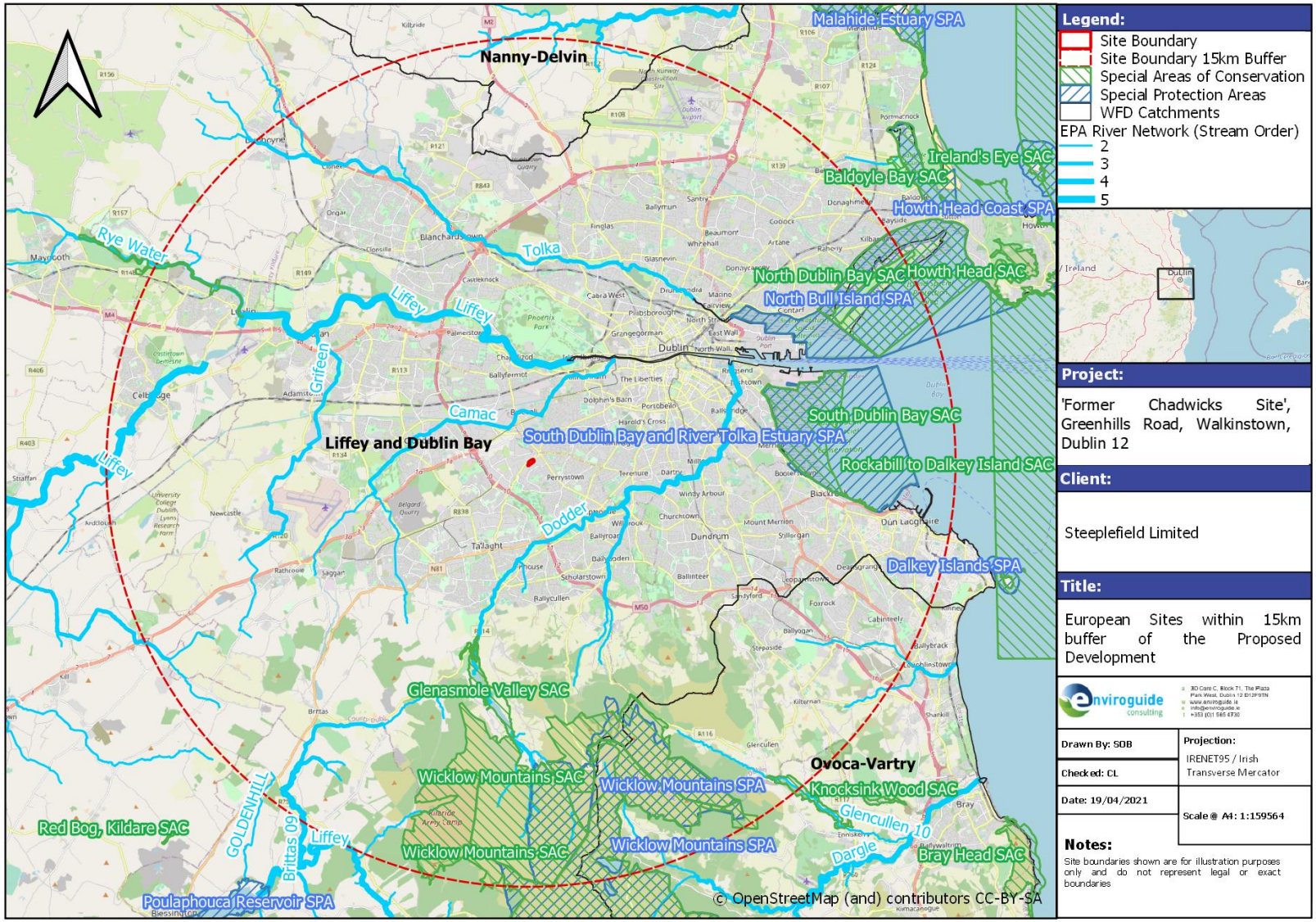

FIGURE 4. EUROPEAN SITES WITHIN 15KM OF THE PROPOSED DEVELOPMENT SITE.

3.5 Assessment of Likely Significant Effects

A European Site will only be at risk from likely significant effects where the Source-Pathway-Receptor link exists between the Proposed Development and the European Site. As such, the remainder of this AA Screening report will focus on the European Sites for which a S-P-R link was identified, namely:

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

3.5.1 Conservation objectives

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them.

Site specific conservation objectives (SSCO) have been compiled for the European Sites listed above. Site-specific conservation objectives aim to define favourable conservation condition for habitats or species at a site.

The maintenance of habitats and species within European Sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

3.5.2 Identification and Assessment of Likely Significant Effects

The conservation objectives of the European Sites within the zone of influence were reviewed and assessed to establish whether the construction and operation of the Proposed Development has the potential to have a negative impact on any of the qualifying interests and/or conservation objectives of the European Sites listed above.

The assessment framework is taken from the best practice guidelines issued by the European Commission, i.e., "Assessment of plans and projects significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC".

The potential for significant effects resulting from the Proposed Development during the Construction and Operational Phases was determined based on a range of indicators, including:

- Habitat loss or alteration,
- Habitat/species fragmentation,
- Disturbance and/or displacement of species,
- Changes in population density, and
- Changes in water quality and resource.

The following elements of the Proposed Development were assessed for their potential for likely significant effects on European Sites.

- **Construction Phase** (estimated duration: 12-18 months)
  - Uncontrolled releases of silt, sediments and/or other pollutants to air due to earthworks
  - Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies.
  - Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater.
  - Waste generation during the Construction Phase comprising soils, construction and demolition wastes.
  - Increased noise, dust and/or vibrations as a result of construction activity.
  - Increased dust and air emissions from construction traffic.
  - Increased lighting in the vicinity as a result of construction activity.

- **Operational Phase** (estimated duration: indefinite)
  - Surface water drainage from the Site of the Proposed Development.
  - Increased lighting in the vicinity emitted from the Proposed Development; and
  - Increased human presence in the vicinity as a result of the Proposed Development.

3.5.2.1 *Habitat Loss and Alteration*

The project is not located within any European Site and therefore there will be no loss or alteration of habitat as a result of the Proposed Development.

3.5.2.2 *Habitat / Species Fragmentation*

As there will be no direct habitat loss within any European Sites, no habitat fragmentation will arise as a result of the Proposed Development.

3.5.2.3 *Changes in Water Quality and Resource*

The Proposed Development will be served by the existing surface water network via a new connection. Therefore, there is a weak hydrological link between the Site and South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA via surface water discharges into the River Camac from the Site during the Construction and Operational Phases.

- SuDS Measures are included in the Project Design however, they **are not** being relied upon in any way to mitigate against likely significant effects on a European Site. The assessment and Screening conclusion contained within this report do not rely on SuDS measures and the same findings would be reached if these measures were removed from the project design.
    - It is a policy of South Dublin County Council (IE2 Obj-4) to "incorporate Sustainable Urban Drainage Systems (SuDS) as part of Local Area Plans, Planning Schemes, Framework Plans and Design Statements". As such, the Proposed Development design will entail a suite of SuDS measures that will be incorporated into the Proposed Development.

The potential for surface water generated at the Site of the Proposed Development to reach European Sites within Dublin Bay and cause significant effects, during both the Construction and Operational Phase, is negligible due to:

- The distance and consequent potential for dilution in the River Camac, River Liffey and Dublin Bay. Surface water discharges would have to travel almost 13km within the surface water network and along the River Camac and River Liffey before discharging into Dublin Bay.

- The potential for dilution in the surface water network during heavy rainfall events.

The Site will be served by a public foul sewer via a newly constructed connection. Therefore, there is a weak hydrological link between the Site and South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA via discharges from Ringsend WwTP during the Operational Phase.

The potential for foul waters generated at the Site of the Proposed Development to reach European Sites within Dublin Bay and cause significant effects, during the Construction and Operational Phases, is negligible due to:

- The potential for dilution in the surface water network during heavy rainfall events.

- The upgrade works to Ringsend WWTP which will increase the capacity of the facility from 1.6 million PE to 2.4 million PE (see section 3.5.2.6 below for more details).

- It is considered that effects on marine biodiversity and the European Sites within Dublin Bay from the current operation of Ringsend WwTP are unlikely (see section 3.5.2.6 for more details).

- The main area of dispersal of the treated effluent from Ringsend WwTP is in the Tolka Basin and around North Bull Island. South Dublin Bay is unaffected by the effluent from the plant (Irish Water, 2018).

- The increase of the Population Equivalent (PE) load at the facility as a result of the Proposed Development, assuming each PE unit was not previously supported by the WwTP, is considered to be an insignificant increase in terms of the overall scale of the facility. The increased load does not have the capacity to alter the effluent released from the WwTP to such an extent as to result in likely significant effects on this SAC.

In addition, upgrade works are currently on-going at Ringsend WwTP to increase the capacity of the facility from 1.6 million PE to 2.4 million PE. This plant upgrade will result in an overall reduction in the final effluent discharge of several parameters from the facility including BOD, suspended soils, ammonia, DIN and MRP (Irish Water, 2018).

3.5.2.4 *Disturbance and / or Displacement of Species*

As outlined in section 3.5.2.3 above, the hydrological link between the Site and the European Sites in Dublin Bay assessed here will not result in significant effects on the water quality and resource indicator during both the Construction and Operational Phases. In addition, there is no potential for negative impacts on the species within the European Sites associated with the Proposed Development due to the intervening distances between them.

No suitable *ex-situ* habitat for QI/SCI species was recorded within the Site of the Proposed Development. The Site is predominantly built land and is not considered to have any significant *ex-situ* nesting or foraging habitat for SCI species associated with any SPA, particularly wintering wading bird species.

3.5.2.5 *Changes in Population Density*

For the same reasons outlined in section 3.5.2.4 above, the Proposed Development does not have the capacity to cause any significant changes in the population density of any species within any European Site.

3.5.2.6 *Potential for In-combination Effects*

Existing Planning Permissions

There are several existing planning permissions on record in the area ranging from small-scale extensions and alterations to existing residential properties to some larger-scale developments. The larger-scale development identified within the vicinity of the Proposed Development are as follows:

Planning Application Reference: SHD3ABP-306705-20.

Demolition of existing factory/warehouse buildings on site (total floor area c. 10,076.8sq.m). Construction of 502 apartments (comprising 197 1-bed; 257 2-bed; and 48 3-bed units) within 6 blocks ranging in height from 4 to 8 storeys. All residential units provided with associated private balconies/terraces to the north/south/east/west elevations. Provision of residential amenity facilities, 3 retail units, creche and services/bin store areas (total non-residential floor area c.1,839sq.m). A total of 202 car parking spaces (at basement and undercroft levels) and 584 no. bicycle parking spaces. Vehicular/pedestrian/cyclist accesses from Greenhills Road and Airton Road. Provision of road improvements and pedestrian crossings. All associated site development works, open space, landscaping, boundary treatments, plant areas, pv panels (at roof level), waste management areas, and services provision (including ESB substations). **(Decision: Grant Permission. Decision Date: 16/06/2020).**

Planning Application Reference: SHD3ABP-309658-21.

Demolition of an existing warehouse/factory building and ancillary outbuildings/structures and the construction of a residential development of 171 apartments with supporting tenant amenity facilities (gym, lounges and meeting room), café, creche, landscaping, public realm improvements, and all ancillary site development works. The proposed development will consist of 2 x studio apartments, 59 x 1-bedroom apartments, 103 x 2-bedroom apartments

and 7 x 3-bedroom apartments contained in two apartment blocks ranging in height from 1 to 8 storeys. The proposed development provides for outdoor amenity areas, landscaping, under-podium car parking, bicycle racks, bin stores, ancillary plant, and roof mounted solar panels. Vehicular access to the proposed development will be provided via a relocated entrance from Ballymount Road Lower. **(Decision: Grant Permission. Decision Date: 23/06/2021).**

These sites lie within 500m Proposed Development Site. The distance between the Proposed Development Site, the permitted development sites above and the closest European Site is approximately 6.8km. This distance, in addition to the significant urban buffer between the sites and European Sites, is sufficient to exclude the possibility of significant effects on the European Site arising from combined emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.

At the time of writing, there are no proposed or permitted forestry operations (thinning, clear felling, road construction) in close proximity to the Site of the Proposed Development[1].

Relevant Policies and Plans

The following policies and plans were reviewed and considered for possible in-combination effects with the Proposed Development.

- Dublin City Biodiversity Action Plan 2015-2020
- Draft Dublin City Biodiversity Action Plan 2021-2025
- Connecting with Nature – Draft Biodiversity Action Plan for South Dublin County 2020-2026
- South Dublin County Council Development Plan 2016-2022

The Dublin City Biodiversity Action Plan 2015-2020, Draft Dublin City Biodiversity Action Plan 2021-2025, and Connecting with Nature – Draft Biodiversity Action Plan for South Dublin County 2020-2026 are set out to protect and improve biodiversity, and as such will not result in negative in-combination effects with the Proposed Development. The South Dublin County Council Development Plan 2016-2022 has directly addressed the protection of European Sites through specific policies (HCL12 Obj1-Obj2, HCL13 Obj1-Obj2). The relevant recommendations and mitigation measures have been integrated into the plan.

On examination of the above it is considered that there are no means for the Proposed Development to act in-combination with any plans or projects, that would cause any likely significant effects on any European Sites.

Operation of Ringsend WWTP

In June 2018 Irish Water applied for and subsequently received planning permission in 2019 for upgrade works to the Ringsend WwTP facility. There are already on-going upgrading works taking place, which were the subject of a prior permission which are expected to be complete in 2021. These works, together with the further works permitted in 2019 will increase the capacity of the facility from 1.6 million PE to 2.4 million PE. This plant upgrade will result in an

[1] https://forestry-maps.apps.rhos.agriculture.gov.ie/

overall reduction in the final effluent discharge of several parameters from the facility including BOD, suspended soils, ammonia, DIN and MRP. An Environmental Impact Assessment Report (EIAR) was submitted by Irish Water as part of this application. The EIAR contains sections relating to Marine Biodiversity and Terrestrial Biodiversity, and each contains a section on the 'do-nothing scenario'. These review the effects of the WwTP on biodiversity in Dublin Bay *in the absence of the upgrade works* and so are relevant to this report.

The EIAR report acknowledges that under the do-nothing scenario "*the areas in the Tolka Estuary and North Bull Island channel will continue to be affected by the cumulative nutrient loads from the river Liffey and Tolka and the effluent from the Ringsend WwTP*", which could result in a decline in biodiversity and the deterioration of the biological status of Dublin Bay (Irish Water, 2018). Nevertheless, these negative impacts of nutrient over-enrichment are considered "unlikely" (Irish Water, 2018). This is because historical data suggests that pollution in Dublin Bay has had little or no effect on the composition and richness of the benthic macroinvertebrate fauna. The EIAR notes that "*although a localised decline could occur, it is not envisaged to be to a scale that could pose a threat to the shellfish, fish, bird or marine mammal populations that occur in the area*." Indeed, the results of the marine macroinvertebrate studies undertaken for the EIAR show that "*the Inner Tolka Basin is host to macroinvertebrate communities as rich (if not richer) than those found in the north Dublin Bay and south Dublin Bay mudflats and sandflats*". Furthermore, the EIAR notes that significant impacts on waterbird populations foraging on invertebrates in Dublin Bay due to nutrient over-enrichment are "*unlikely*" to occur (Irish Water, 2018). What is important in the context of this AA screening report is that the do-nothing scenario predicts that nutrient and suspended solid loads from the WwTP will "*continue at the same levels and the impact of these loadings should maintain the same level of effects on marine biodiversity*" and that "*if the* status *quo is maintained there will be little or no change in the majority of the intertidal faunal assemblages found in Dublin Bay which would likely continue to be relatively diverse and rich across the bay*."

Therefore, it can be concluded that significant effects on marine biodiversity and the European Sites within Dublin Bay from the current operation of Ringsend WwTP are unlikely. Importantly, this conclusion is not dependent upon any future works to be undertaken at Ringsend. Thus, in the absence of any upgrading works, significant effects to European Sites are not likely to arise.

On examination of the above it is considered that there are no means for the Proposed Development to act in-combination with any plans or projects, that would cause any likely significant effects on any European Sites.

TABLE 2. SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES AS A RESULT OF THE PROPOSED DEVELOPMENT.

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	In-combination effects	Stage 2 AA Required
SAC							
Glenasmole SAC (001209)	No	No	No	None	None	None	NO
South Dublin Bay SAC (000210)	No	No	No	None	None	None	NO
Wicklow Mountains SAC (002122)	No	No	No	None	None	None	NO
Rye Water Valley/Carton SAC (001398)	No	No	No	None	None	None	NO
North Dublin Bay SAC (000206)	No	No	No	None	None	None	NO
Knocksink Wood SAC (000725)	No	No	No	None	None	None	NO
SPA							
South Dublin Bay and River Tolka Estuary SPA (004024)	No	No	No	None	None	None	NO
Wicklow Mountains SPA (004040)	No	No	No	None	None	None	NO
North Bull Island SPA (004006)	No	No	No	None	None	None	NO

4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Development at Former Chadwicks Site, Greenhills Road, Walkinstown, Dublin 12 has been assessed taking into account:

- the nature, size and location of the proposed works and possible impacts arising from the construction works.
- the qualifying interests and conservation objectives of the European Sites
- the potential for in-combination effects arising from other plans and projects.

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that, on the basis of objective information; the possibility **may be excluded** that the Proposed Development will have a significant effect on any of the European Sites listed below:

Glenasmole SAC (001209)

South Dublin Bay SAC (000210)

Wicklow Mountains SAC (002122)

Rye Water Valley/Carton SAC (001398)

North Dublin Bay SAC (000206)

Knocksink Wood SAC (000725)

South Dublin Bay and River Tolka Estuary SPA (004024)

Wicklow Mountains SPA (004040)

North Bull Island SPA (004006)

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded, on the basis of the best scientific knowledge available, that the possibility of any significant effects on any European Sites, whether arising from the project itself or in combination with other plans and projects, can be excluded. Thus, there is no requirement to proceed to Stage 2 of the Appropriate Assessment process; and the preparation of a Natura Impact Statement (NIS) is not required.

5 REFERENCES

Department of the Environment, Heritage and Local Government. (2010). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DEHLG, Dublin. (Rev. Feb 2010).

Environmental Protection Agency. (2022). Environmental Protection Agency Online Mapping [ONLINE] Available at: http://www.epa.ie/ [Accessed January 2022].

European Commission. (2000). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Communities, Luxembourg.

European Communities. (2021). Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities, Luxembourg.

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

Franklin, A. N. (2002). What is Habitat Fragmentation? Studies in Avian Biology, 20-29.

Geological Survey Ireland. (2022). Geological Survey of Ireland website [ONLINE] Available at: http://www.gsi.ie/ accessed [Accessed January 2022].

Irish Water (2018) Ringsend Wastewater Treatment Plant Upgrade Project Environmental Impact Assessment Report. Volume 3 - Ringsend Wastewater Treatment Plant Part A: Report

NPWS. (2010). Circular NPW 1/10 & PSSP 2/10. Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.

NPWS. (2013a). Conservation Objectives: South Dublin Bay SAC [000210]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2013b). Conservation Objectives: North Dublin Bay SAC [000206]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2015a). Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA [004024]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2015b). Conservation Objectives: North Bull Island SPA [004006]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. (2017). Conservation Objectives: Wicklow Mountains SAC [002122]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS. (2021a). Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS. (2021b). Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS. (2021c). Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

NPWS. (2021d). Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 8.0. Department of Housing, Local Government and Heritage.

Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management, OPR Practice Note PN01