Enviroguide
a DNV company

enviroguide.ie

Appropriate Assessment Screening Report

PRESENTED TO

Wicklow County Council
Swimming Pool Refurbishment at Coral Leisure Centre, Station Road, Wicklow, Co. Wicklow

March 24

Environmental Consultancy Services

DOCUMENT CONTROL SHEET

Applicant	Wicklow County Council
Project Title	Swimming Pool Refurbishment at Coral Leisure Centre, Station Rd, Wicklow, Co. Wicklow
Document Title	Appropriate Assessment Screening Report

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
0.0	Draft for internal Review	AC *Ecologist*	SOB *Ecologist*	-	-
1.0	Draft for Client	AC *Ecologist*	SOB *Ecologist*	BT *Ecologist*	01/03/2024
2.0	Final	AC *Ecologist*	SOB *Ecologist*	SOD *Principal Ecologist*	07/03/2024

REPORT LIMITATIONS

Synergy Environmental Ltd. t/a Enviroguide Consulting (hereafter referred to as “Enviroguide”) has prepared this Report for the sole use of Wicklow County Council 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 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.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Tobin Consulting Engineers on behalf of Wicklow County Council to prepare an Appropriate Assessment Screening Report for a Swimming Pool Refurbishment at Coral Leisure Centre, Station Road, Wicklow, Co. Wicklow, hereafter referred to as 'Proposed Development' or 'Site', when referring to the application Site area. This report contains information to enable the Competent Authority to undertake Stage 1 Appropriate Assessment (AA) screening in respect of the Proposed Development.

1.2 Quality Assurance and Competence

Enviroguide Consulting is multi-disciplinary consultancy specialising in the areas of the Environment, Waste Management and Planning. All Enviroguide consultants carry scientific or engineering qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training and continued professional development.

Enviroguide Consulting as a company remains fully briefed in European and Irish environmental policy and legislation. Enviroguide staff members are highly qualified in their field. Professional memberships include the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association and Chartered Institute of Ecology and Environmental Management (CIEEM).

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. AC, Ecologist with Enviroguide, undertook the desktop research and authored this report.

AC is an experienced general ecologist; she is an Associate member of CIEEM (ACIEEM) with an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. AC has a wealth of experience authoring and reviewing Screenings for Appropriate Assessment (AA), Natura Impact Statements (NIS), Ecological Impact Assessments (EcIA) and Biodiversity Chapters for Environmental Impact Assessment Reports (EIAR). Subsequently, she is very familiar with the process of ecological assessment and the relevant legislation. She is knowledgeable in a range of survey techniques, including bats, mammals, birds, amphibians, invasive species and habitat surveys.

1.3 Description of Proposed Development

1.3.1 Site Location

The Site is an existing swimming facility, located in north Wicklow town on the Station Road, accessible via Dublin Road, the main road that runs through the town. To the north, south and west lie the Wicklow Rovers football pitches, Wicklow County Council offices and associated parking lie to the east of the Site, on the other side of the Station Road via which the Site is accessed. The habitats at the Site itself comprise mainly

Buildings & Artificial Surfaces (BL3) and Amenity Grassland (GA2). The Site location is shown in Figure 1 below.

1.3.2 Proposed Development Description

The Development comprises the refurbishment and upgrade of the existing swimming pool facilities at Coral Leisure Centre in Wicklow town, including making repairs to the damaged roof. The proposed works are as follows:

- Changing Rooms: Conversion of the changing rooms into a village format, extended with family rooms and group changing rooms. Integration of the accessible changing rooms through the installation of a hoist, so that less able-bodied people can make use of the facility. Changing room tiles will also be replaced.
- The pool: A new Air Handling Unit will be installed, the pool roof will be refurbished to resolve water ingress and repair cracks to the external walls. Sub-meters will be installed for water supply; a gas detection system will be installed in the Combined Heat and Power (CHP) plant room, electrical boards will be refurbished along with the switchgear and emergency lighting, pool ceiling fall arrest will be provided, and handrails will be installed in the plant area.
- Accessibility: Accessibility to the building is to be improved, through the addition of dropped kerbs at footpaths, ramps and changing areas, landings at fire escapes, a lowered front desk to a wheelchair friendly height and the installation of an induction loop.
- Reception and circulation areas: These areas are to be refurbished, while access turnstiles will be installed, the spectating area will be enhanced, and the sauna and steam rooms are to be refurbished. 50 no. new lockers are also to be installed.
- Internal signage will be replaced, handrails will be installed along the sloped pool access and the existing ironmongery will and sanitary ware will be replaced.

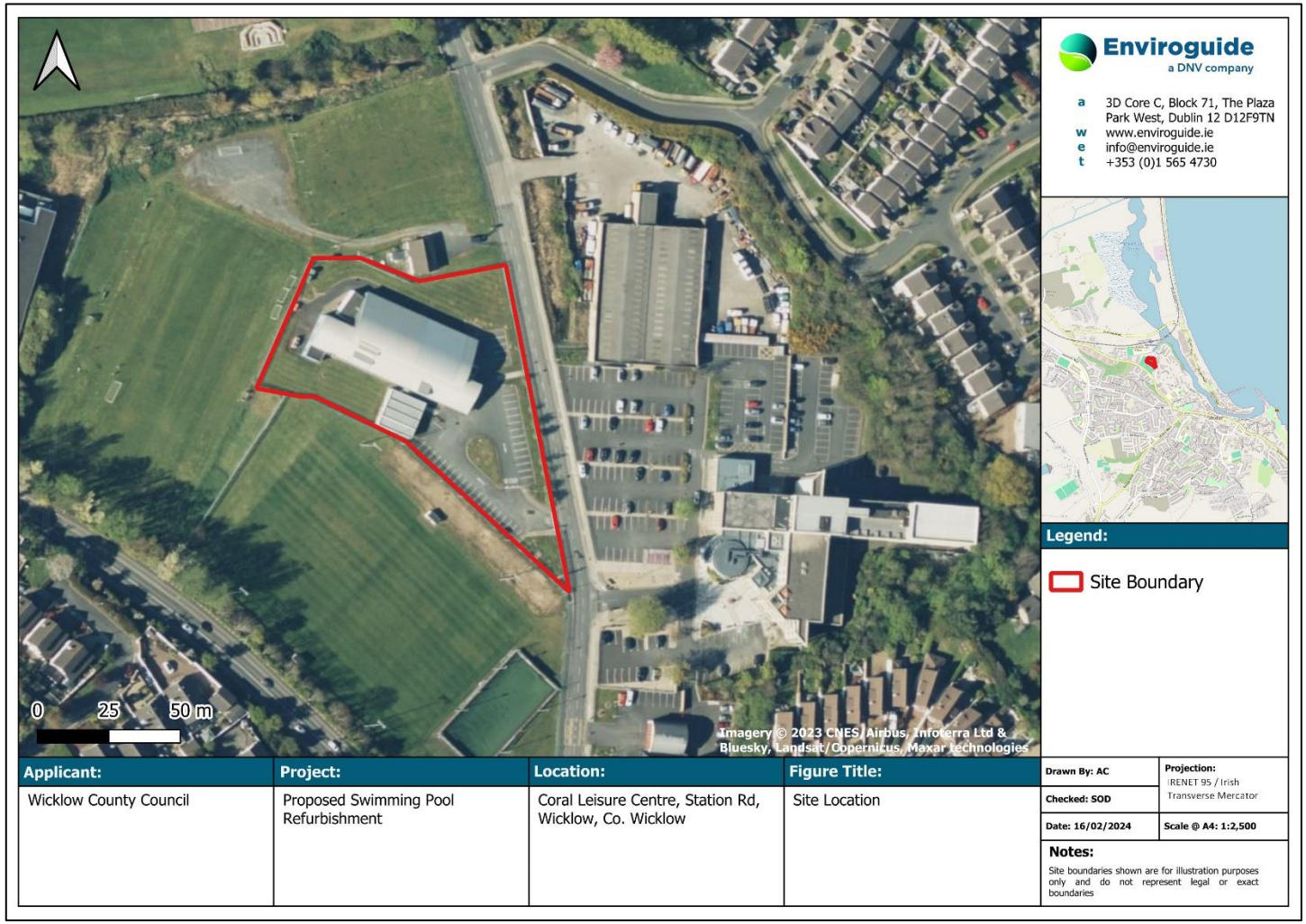

FIGURE 1. SITE LOCATION.

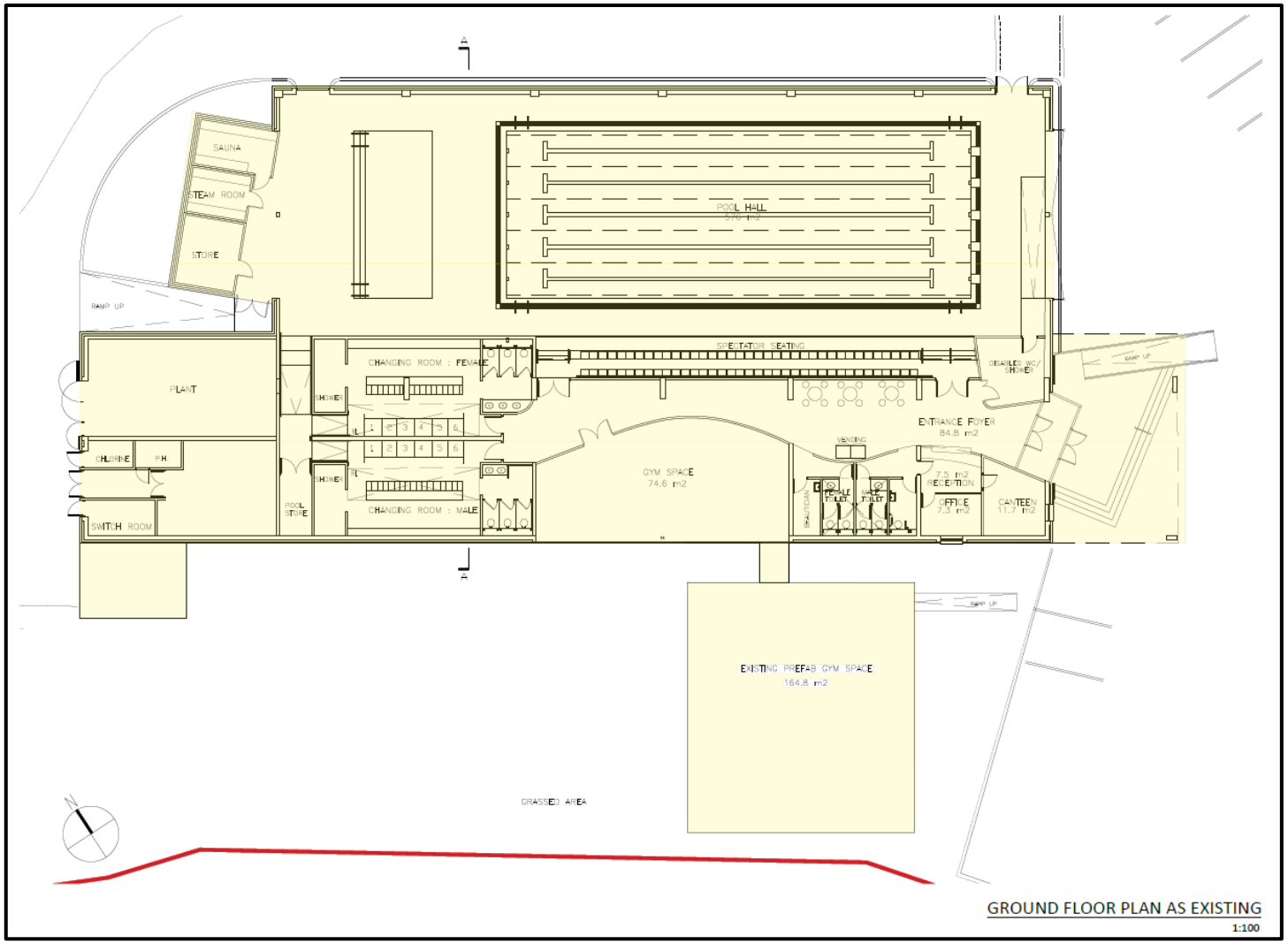

FIGURE 2. EXISTING SITE LAYOUT (TOBIN CONSULTING ENGINEERS, 2024)

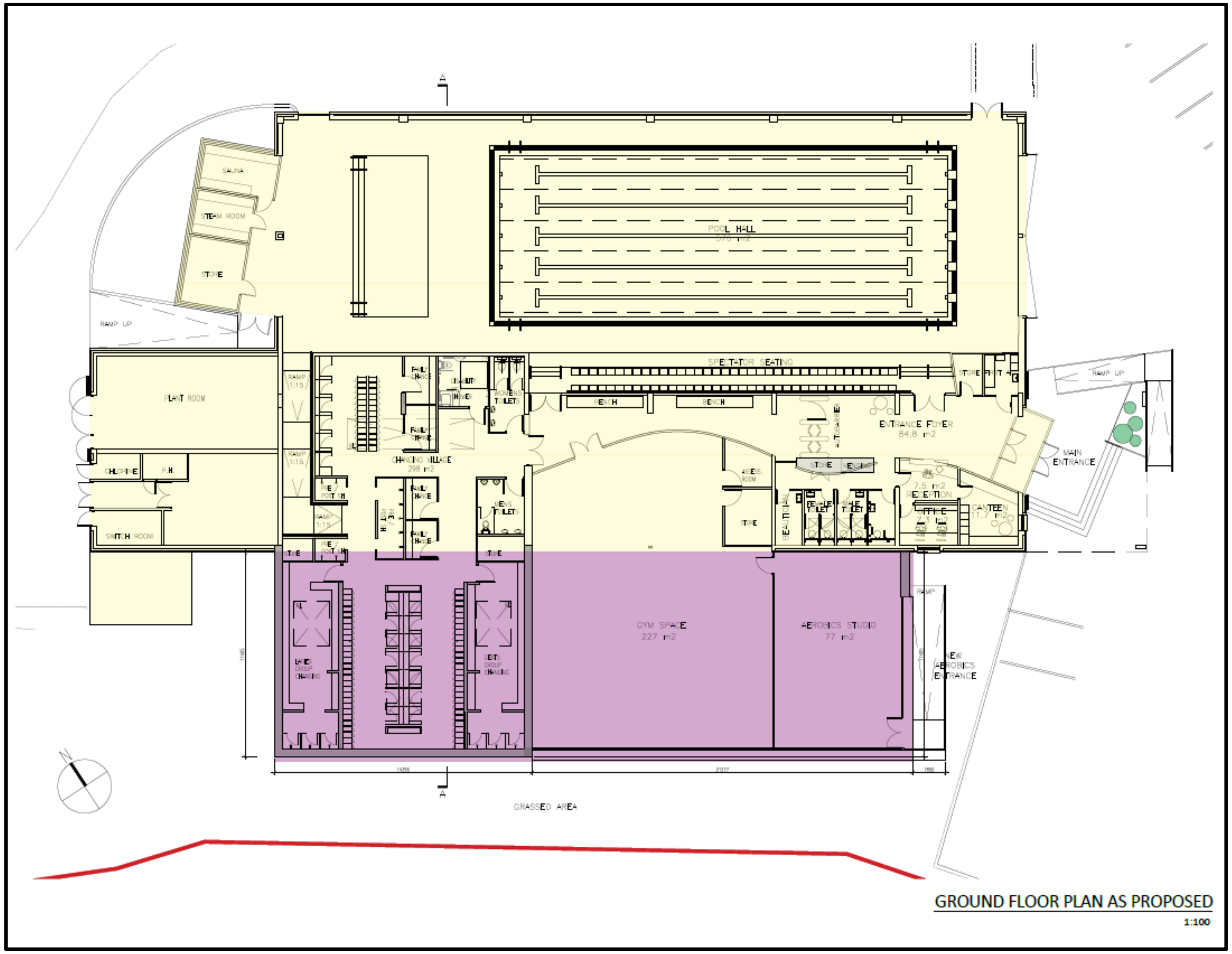

Figure 3. Proposed Site Layout (Tobin Consulting Engineers, 2024)

2 LEGISLATIVE AND POLICY CONTEXT

2.1 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). The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011).

It is the responsibility of each Member State to designate SPAs and SACs, both of which will form part of the Natura 2000 Network, a network of protected sites throughout the European Community. These designated sites are referred to as "Natura 2000 sites" or "European sites". 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 (QIs) and Special Conservation Interests (SCIs) of the sites; from these the conservation objectives of the site are derived.

An AA is a required assessment to determine the likelihood of significant effects, based on best scientific knowledge, of any plans or projects on European sites. A screening for AA determines whether a plan or project, either 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.

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.

2.1.1 Legislative Context

The 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."

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."*

According to the ruling delivered in open court in Luxembourg on 15th June 2023 regarding the interpretation of Article 6(3) of Directive 92/43, the Article 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".

As such, standardised embedded mitigation (such as the use of Sustainable Drainage Systems (SuDS) in large-scale residential developments), that are incorporated into the design of a proposal or project and which may result in a reduction of effects impacting European sites, but where the primary reason of the embedded mitigation is not to protect a European site, are permitted for consideration during the undertaking of AA.

2.2 Policy Context

2.2.1 Wicklow County Development Plan 2022-2028[1]

Policies and objectives of the Wicklow County Development Plan 2022 – 2028 that are of relevance to this Screening Report are outlined below:

[1] Wicklow County Development Plan. Available at: https://www.wicklow.ie/Portals/0/adam/Documents/db--YFRK6kipHza3SVPqxg/Link/Chapter%2017%20-Natural%20Heritage%20&%20Biodiversity%20as%20altered.pdf [Accessed February 2024]

- To conserve and enhance biodiversity in recognition of the many ecosystem services provided to society;
- To avoid negative impacts upon the natural environment and promote appropriate enhancement of the natural environment as an integral part of any development;
- To promote an integrated approach to landscape planning and management in order to protect the County's unique landscape character;
- To conserve and enhance the County's geological heritage; and
- To support the actions in the County Wicklow Heritage Plan which seek to enhance the understanding, appreciation and protection of Wicklow's biodiversity including the County Wicklow Biodiversity Action Plan.

Some of the relevant policies include:

- **CPO 17.4:** To contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).
- To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including but not limited to the following and any updated/superseding documents: EU Directives, including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Liability Directive (2004/35/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended), the Water Framework Directive (2000/60/EC), EU Groundwater Directive (2006/118/EC) and the Strategic Environmental Assessment Directive (2001/42/EC); EU 'Guidance on integrating ecosystems and their services into decision-making' (European Commission 2019).
- **CPO 17.5:** Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan.
- **CPO 17.6:** Ensure that development proposals, contribute as appropriate towards the protection and where possible enhancement of the ecological coherence of the European Site network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the EU Habitats directive. All projects and plans arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.
- **CPO 17.10:** To support the Department of Housing, Local Government and Heritage and the National Parks and Wildlife Service in the development of site specific conservation objectives (SSCOs) for designated sites.
- **CPO 17.14:** Ensure that development proposals support the protection and enhancement of biodiversity and ecological connectivity within the plan area in accordance with Article 10 of the Habitats Directive, including linear landscape features like watercourses (rivers, streams, canals, ponds, drainage channels, etc), woodlands, trees, hedgerows, road and railway margins, semi-natural grasslands, natural springs,

wetlands, stonewalls, geological and geo-morphological systems, features which act as stepping stones, such as marshes and woodlands, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones that taken as a whole help to improve the coherence of the European network in Wicklow.

- **CPO 17.17:** Work with statutory authorities to prevent and control the spread of invasive plant and animal species and require, where appropriate Invasive Species Management Plans to be prepared as part of the development management process where necessary.

2.2.2 Wicklow Biodiversity Action Plan 2010-Present[2]

Wicklow County Biodiversity Action Plan is set out to protect and improve biodiversity through the following objectives:

- To better understand the biodiversity of Wicklow.
- To raise awareness of biodiversity in Wicklow, its value and the issues facing it.
- To conserve and enhance habitats and species in Wicklow, taking account of national and local priorities.
- To foster active participation to help biodiversity in Wicklow, encouraging a partnership approach to help our species and habitats.

2.3 Stages of Appropriate Assessment

This AA 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 AA is required.

The AA process is a four-stage process. Each stage requires different considerations, assessments and tests to ultimately arrive at the relevant conclusion for 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.

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

- **Stage 1: *Screening*.** The Screening for AA considers whether a plan or project is directly connected to or necessary for the management of a European 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).*** Where Stage 1 determines that significant effects are likely, uncertain or unknown, the preparation of a NIS is required. The NIS must include a scientific examination of evidence and data to classify potential impacts on any European site(s) in view of their conservation objectives in the absence of mitigation. The NIS will identify appropriate mitigation to remove the potential for likely significant adverse effects on any European site(s). If the competent authority determines that the plan or project would have an adverse effect on the integrity of any

[2] Wicklow Biodiversity Action plan. Available at: https://www.wicklow.ie/Portals/0/Documents/Arts%20Heritage%20&%20Archives/Heritage/Natural%20Heritage/Biodiversity%20in%20Wicklow/Biodiversity%20Plan/County_Wicklow_Biodiversity_Plan_2010-15.pdf [Accessed February 2024]

European site(s) despite mitigation, it can only grant consent after proceeding through stages 3 and 4.

- **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.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. First the project should aim to avoid any negative effects on European sites by identifying possible effects early in the planning stage and designing the project to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, a refusal for planning permission may be recommended. In this case, the project will generally only be considered where no alternative solutions are identified and the project is required for IROPI, or, in the case of priority habitats, considerations of health or safety, or beneficial consequences of primary importance for the environment or to other IROPI. Then compensation measures are required for any remaining adverse effects.

3 AA SCREENING METHODOLOGY

3.1 Guidance

This 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;
- *Communication from the Commission on the precautionary principle* (European Commission, 2000);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019);
- *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* Brussels, 28.9.2021 C (European Commission, 2021); and
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021.*

3.2 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 baseline existing environment at the Site of the Proposed Development;
- Identification of relevant European site(s) potentially affected;
- Identification and description of potential effects on the relevant European site(s);
- Assessment of the likely significance of the effects identified on the relevant European site(s);
- Description and characterisation of other projects or plans that in combination with the Proposed Development have the potential for having significant effects on the European site; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

It should be noted that any targeted ecological mitigation measures and/or measures intended or included for the purposes of avoiding adverse effects arising as a result of the Proposed Development on any European site **have not been considered** as part of this Screening Report.

3.3 Desk Study

A desktop study was carried in February 2024 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, QIs 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 (available at *https://natura2000.eea.europa.eu/*) and Site Synopses (available at *www.npws.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; and
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the Proposed Development from the Wicklow County Council online planning database (*Wicklow.maps.arcgis.com*) and the National Planning Database (DHLGH, 2024).

For a complete list of the documents consulted as part of this assessment, see *Section 6 References*.

3.4 Identification of Relevant European sites

The Zone of Influence (ZOI) for a project is the area over which ecological features may be affected by changes as a result of a development and associated activities. This is likely to extend beyond the development site, for example where there are ecological or hydrological links beyond the site boundaries (CIEEM, 2018). Furthermore, ZOI in relation to European sites is described as follows in the 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021):

> "*The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km).*"

Thus, to identify the European sites that potentially lie within the ZOI of the Proposed Development, a Source-Path-Receptor (S-P-R) method was adopted, as described in OPR PN01 (OPR 2021). This note was published to provide guidance on screening for 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 Screening Reports such as this.

The relevant European sites were identified based on the following:

- Identification of potential sources of effects based on the Proposed Development description and details, including changes to potentially suitable ex-situ habitats at the Site (i.e., habitats utilised by SCI bird species outside of their designated SPAs);
- 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; and
- Identification of potential pathways between the Site of the Proposed Development and any European sites within the ZOI of any of the identified sources of effects.
    - The catchment data were used to establish or discount potential hydrological connectivity between the Proposed Development and any European sites.
    - Groundwater and bedrock information used to establish or discount potential hydrogeological connectivity between the Proposed Development and any European sites.
    - Air and land connectivity assessed based on Proposed Development details and proximity to European sites.
    - Consideration of potential indirect pathways, e.g., impacts to flight paths, *ex-situ* habitats, etc.
- Defining the likely ZOI based on the identified sources of effects and potential pathways between the Proposed Development and any European sites.

3.5 Assessment of Significant Effects

The conservation objectives of the European sites identified to lie within the ZOI were reviewed and assessed in order to establish whether the construction and operation of the Proposed Development has the potential to have a negative impact on any of the QIs and/or conservation objectives listed for the site.

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 that may arise from the Proposed Development was considered through the use of key indicators:

- 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.

3.6 Limitations

No limitations were encountered which would prevent robust conclusions being drawn as to the potential impacts of the Proposed Development on the relevant European sites.

4 STAGE 1 SCREENING ASSESSMENT

4.1 Existing Environment

4.1.1 Desk Study Results

4.1.1.1 Hydrology, Geology and Hydrogeology

The Site of the Proposed Development is located within the Ovoca-Vartry catchment (Catchment ID: 10) and the Vartry_SC_010 sub-catchment (Subcatchment ID: 10_4).

The nearest river waterbody is located *c.* 61m north of the Site, namely, Wicklow_010 (IE_EA_10W080880) and has been classed by the Water Framework Directive (WFD) as being of 'Good' quality for the survey period 2016-2021. The transitional waterbody Broad Lough (IE_EA_130_0100) lies *c.* 250m east of the Site, downstream of the Wicklow_010 river, and has a 'Moderate' water quality status for the 2016-2021 survey period, a status which it has retained since the first (2007-2009) survey period. The Broad Lough transitional waterbody flows in a southeasterly direction from the Site, before discharging into the sea at Wicklow Harbour. There are no Q-values currently available for any of the surrounding waterbodies.

The Site is situated on the Wicklow groundwater body (IE_EA_G_076), which has a status of 'Good' for the 2016-2021 survey period, a status which it has retained since the first (2007-2009) survey period. This groundwater body is also classed as being 'At Risk' of not meeting its WFD objectives, which may owe to the upward trend in Ammonia-total (as N), Chloride and Ortho-phosphate (as P). The vulnerability of the underlying aquifer is 'Moderate', described as being a 'Poor Aquifer', which is 'Generally unproductive except for local zones' (GSI, 2024).

The underlying soils are Urban, described as 'soil concreted over', while the subsoils underlying the Site comprise 'Made' ground that is described as 'man-made' in nature. Similarly, the quaternary sediments are described as also being 'Urban' (GSI, 2024).

The Waterbody Status for river, groundwater, transitional and coastal water bodies relevant to the Site as recorded by the EPA (2022) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003) are provided in Table 1.

TABLE 1. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site	WFD water body status (2016-2021)	WFD 3rd cycle Risk Status	Hydraulic Connection to the Site
Surface waterbodies						
Wicklow_010	IE_EA_10W 080880	N	61m	Good	Review	None
Transitional waterbodies						
Broad Lough	IE_EA_130_ 0100	E	250m	Moderate	At risk	None
Coastal waterbodies						
Southwestern Irish Sea – Killiney Bay	IE_EA_100_ 0000	E	605m	High	Not at Risk	None
Groundwater bodies						

Waterbody Name	Water body; EU code	Location from Site	Distance from Site	WFD water body status (2016-2021)	WFD 3rd cycle Risk Status	Hydraulic Connection to the Site
Wicklow Groundwater Body	IE_EA_G_076	N/A	N/A	Good	At Risk	Underlying groundwater body

4.2 Identification of Relevant European Sites

4.2.1 Potential Sources of Effects

The Proposed Development is not directly connected with or necessary to the management of European sites. However, the following elements of the Proposed Development were identified and assessed for their potential to cause likely significant effects on European sites.

Construction Phase (*Estimated duration:* ***6 months***)

- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies or surface water network;
- Waste generation during the Construction Phase comprising soils and construction wastes, and;
- Increased noise, dust and/or vibrations as a result of construction activity.

Operational Phase *(Estimated duration:* ***Indefinite****)*

- Surface water drainage from the Site of the Proposed Development, and;
- Foul water from the Proposed Development.

4.2.2 Potential Pathways to European Sites

For the above listed potential sources of effects to have the potential to cause likely significant effects on any European site, a pathway between the source of potential effects (i.e., the Site of the Proposed Development) and the receptor is required. Potential impact pathways are discussed in the following sections in the context of the identified impact sources as identified in section 4.2.1.

4.2.2.1 Direct Pathways

4.2.2.1.1 Hydrological pathways

The Site is located *c.* 61m from the Wicklow_010 river waterbody, which lies *c.* 140m upstream of **The Murrough SPA (004186)**, and *c.* 400mdownstream of **The Murrough Wetlands SAC (002249)**. As **The Murrough Wetlands SAC (002249)** lies upstream of the Proposed Development, there is no hydrological pathway for the propagation of effects between the Proposed Development and this SAC.

In the event of completely uncontrolled surface water run-off from the Site during the Construction Phase, there is the possibility that sediments, hydrocarbons or other pollutants could enter the Wicklow_010 river waterbody to the north and travel downstream to **The Murrough SPA (004186)**. This constitutes a weak hydrological pathway between the Site and this SPA and thus this pathway is brought forward for further assessment in section 0.

Approx 3km downstream via the Irish Sea lies Wicklow Head SPA (004127), while Wicklow Reef SAC (002274) lies *c.* 4km downstream, however, there is no potential for the propagation of significant effects to these two European sites via a hydrological pathway given the assimilative capacity of the intervening marine waters which will dilute any effects to imperceptible levels. There are no further hydrological pathways between the Proposed Development and any other European sites.

4.2.2.1.2 Hydrogeological pathways

During groundworks and other Construction Phase activities, the ground will be exposed and any possible accidental discharges of pollutants to the ground could potentially migrate vertically downward to the underlying bedrock aquifer and laterally within the aquifer to the downgradient **The Murrough SPA (004186)**, which lies *c.* 100m northeast at its closest point. This constitutes a weak hydrogeological pathway between the Site and this SPA , however, given the minor and short-term nature of the works, the urban location and the low productivity of the underlying aquifer, this pathway is ruled out and any effects propagated via this pathway would be insignificant. There are no no additional European sites within the vicinity of the Proposed Development with groundwater sensitivities and no further hydrogeological pathways between the Proposed Development and any European sites.

4.2.2.1.3 Air and land pathways

As previously mentioned, **The Murrough SPA (004186)** lies *c.* 100m northeast of the Proposed Development at its closest point. **The Murrough Wetlands SAC (002249)** is situated *c.* 270m northeast of the Proposed Development.

Noise and Visual Disturbance

Construction-related disturbance and displacement of SCI waterbird species could potentially occur within the vicinity of the Proposed Development. There are no QI species for which **The Murrough Wetlands SAC (002249)** is designated and as such there is no potential for disturbance-related effects on this SAC. For SCI birds, noise-related disturbance effects would not be expected to extend beyond a distance of *c*.300m (Cutts, et al., 2009), as noise levels associated with general construction activities would attenuate to close to background levels at that distance. An additional screening effect in terms of noise and visual disturbance is provided by the intervening commercial and residential infrastructure separating the Proposed Development Site from the aforementioned European sites. Given the minor nature of the works to be undertaken at the Site (extension to existing building), the separation distance from the actual works area and the aforementioned European sites (see Figure 2 and Figure 3) and the intervening urban infrastructure and the generally busy urban landscape in which the Site is located, it is not anticipated that the Construction Phase of the Proposed Development will significantly exceed the existing baseline at disturbance levels at the Site.

The Site will continue to operate as normal upon completion of refurbishment and upgrade works and as such there will be no significant deviations from the existing baseline disturbance at the Site during Operation.

Dust Deposition

Due to the nature and localised scale of the works, emissions to air during Construction will be limited to brief to temporary dust generation within 25m of the construction site (based on TII assessment criteria for moderate sized construction sites), and emissions from construction machinery and vehicles (TII (formerly NRA), 2011). Given the size of the

Proposed Development Site, dust generation and deposition during construction has the potential to degrade habitats within 25m of the Proposed Development Site (NRA, 2011). Thus, there is no potential for dust related impacts in relation to designated sites. There is no potential for release of contained material to air during Operation.

In summary, there are no air/land pathways between the Proposed Development and any European sites.

4.2.2.2 Indirect Pathways

No indirect pathways (e.g., disruptions to migratory paths or removal of *ex-situ* habitat) were identified, given the lack of suitable habitat for SCI species within the Site of the Proposed Development.

4.2.3 Relevant European sites

A European site will only be at risk from likely significant effects where a S-P- R link exists between the Proposed Development Site and the European site. All of the European sites considered under the S-P-R method are listed in Table 2, however only one European site was identified to have a S-P-R link of note to the Proposed Development Site, namely, **The Murrough SPA (004186).** This European site is highlighted in green in the below table and shown in Figure 4.

TABLE 2. EUROPEAN SITES CONSIDERED WITH THE SOURCE-PATHWAY-RECEPTOR (S-P-R) METHOD TO ESTABLISH NOTABLE LINKS BETWEEN THE SOURCES OF EFFECTS ARISING FROM THE PROPOSED DEVELOPMENT, AND ANY RELEVANT EUROPEAN SITES. THOSE SITES WITH NOTABLE S-P-R LINKS ARE HIGHLIGHTED IN GREEN (IF ANY). QUALIFYING INTERESTS (QIS) TAKEN FROM THE RELEVANT CONSERVATION OBJECTIVES DOCUMENTS (AS REFERENCED) AND/OR THE STANDARD DATA FORMS (EEA, 2023)[3].

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Potential Pathways
Special Areas of Conservation (SAC)		
The Murrough Wetlands SAC (002249)	• Annual vegetation of drift lines [1210] • Perennial vegetation of stony banks [1220] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] • Alkaline fens [7230]	None
Wicklow Reef SAC (002274)	• Reefs [1170]	Weak hydrological pathway ruled out due to distance and intervening marine waters.
Special Protection Areas (SPAs)		

[3] Where applicable, the full species list included in this table is as per the latest updated information as indicated, so either the Conservation Objectives (CO) document for the site, or the latest Standard Data Form (SDF) (EEA, 2023). For SDF updates, CO are not yet available for the newly added species but are assumed, for the purposes of assessment, to follow the same format as for other feature species.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Potential Pathways
The Murrough SPA (004186)	• Red-throated Diver (*Gavia stellata*) [A001] • Greylag Goose (*Anser anser*) [A043] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Wigeon (*Anas penelope*) [A050] • Teal (*Anas crecca*) [A052] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Herring Gull (*Larus argentatus*) [A184] • Little Tern (*Sterna albifrons*) [A195] • Wetland and Waterbirds [A999]	Weak hydrological pathway via Wicklow_010 river waterbody
Wicklow Head SPA (004127)	• Kittiwake (*Rissa tridactyla*) [A188]	Weak hydrological pathway ruled out due to distance and intervening marine waters.

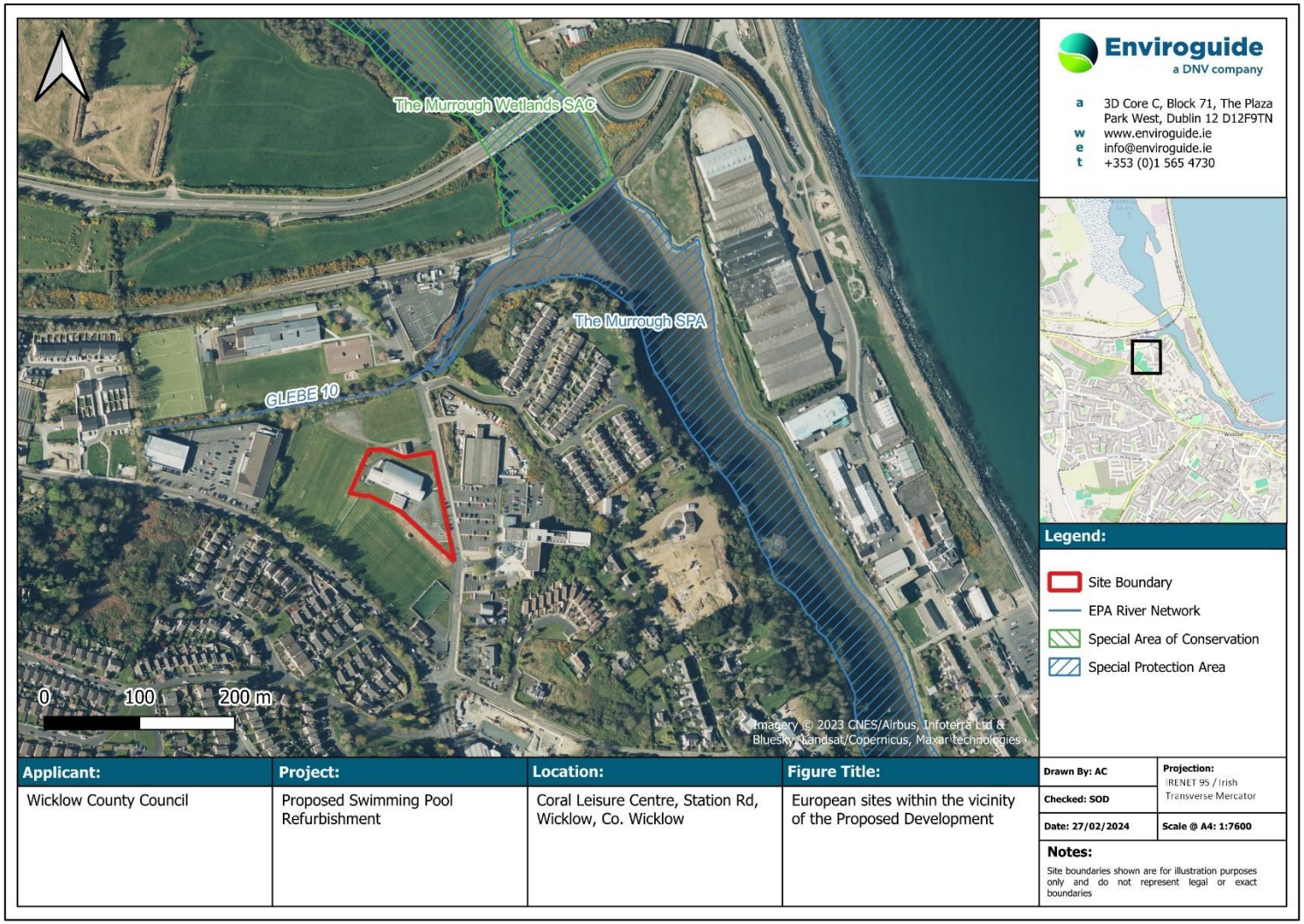

FIGURE 4. LOCATION OF EUROPEAN SITES RELATIVE TO THE PROPOSED DEVELOPMENT.

4.2.3.1 The Murrough SPA (004186)

The following description of The Murrough SPA (004186) is extracted from the Site Synopsis (NPWS, 2015) for the site:

"*The Murrough SPA comprises a coastal wetland complex that stretches for 13 km from Kilcoole Station, east of Kilcoole village in the north to Wicklow town in the south, and extends inland for up to 1 km in places. The site includes an area of marine water to a distance of 200m from the low water mark. A shingle ridge runs along the length of the site and carries the Dublin-Wexford railway line.*

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, being internationally important for Light-bellied Brent Goose and nationally important for Red-throated Diver, Greylag Goose, Wigeon, Teal, Black-headed Gull and Herring Gull. It is probably the most important site in the country for nesting Little Tern. The regular occurrence of Red-throated Diver, Little Egret, Whooper Swan, Greenland White-fronted Goose, Golden Plover, Little Tern, Sandwich Tern, Short-eared Owl and Kingfisher is of note as these species are listed on Annex I of the E.U. Birds Directive. Part of the Murrough SPA is a Wildfowl Sanctuary".

4.2.3.2 Qualifying Interests and Conservation Objectives

The SCIs and their respective conservation objectives for the relevant European site is detailed in Table 3 below.

TABLE 3. QUALIFYING INTERESTS (QIS) / SPECIAL CONSERVATION INTERESTS (SCIS) AND THEIR CONSERVATION OBJECTIVES FOR THE RELEVANT EUROPEAN SITES.

QI / SCI (* = priority habitat)	Conservation Objective
The Murrough SPA (004186)	
Red-throated Diver (*Gavia stellata*) [A001]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.
Greylag Goose (*Anser anser*) [A043]	
Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	
Wigeon (*Anas penelope*) [A050]	
Teal (*Anas crecca*) [A052]	
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	
Herring Gull (*Larus argentatus*) [A184]	
Little Tern (*Sterna albifrons*) [A195]	

Wetland and Waterbirds [A999]	To maintain or restore the favourable conservation condition of the wetland habitat at The Murrough SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

4.3 Assessment of Likely Significant Effects

The following sections discuss the potential for likely significant effects on the relevant European site(s), taking into consideration the QIs, SCIs and SSCOs (where available), and assesses whether the Proposed Development has the capacity to adversely affect the integrity of this European site. Furthermore, due consideration shall be given to species not formally identified but which may be present within The Murrough SPA (004186) and adversely effected by the Proposed Development, provided that those potential impacts are likely to affect the conservation objectives of the designated site. The potential for significant effects that may arise from the Proposed Development was considered through the use of key indicators as detailed in section 3.5.

4.3.1 Habitat Loss and Alteration

Habitat loss is described as being the greatest threat to biodiversity; it is often not immediate, first leading to a harsh decline in species populations, before becoming extinct (Hanski, 2011). There is no potential for direct habitat loss or alteration as a result of the Proposed Development given that no works are to occur within the wetland habitat within The Murrough SPA (004186); furthermore, there are no *ex-situ* habitats within the Site of the Proposed Development with suitability to support SCI species of The Murrough SPA (004186). There is no potential for indirect or direct habitat loss or alteration affecting any European site as a result of the Proposed Development.

4.3.2 Habitat / Species Fragmentation

Habitat fragmentation has been defined as the 'reduction and isolation of patches of natural environment' (Hall et al., 1997 cited in Franklin et al., 2002) usually due to an external disturbance such that an alteration of the spatial composition of a habitat occurs that alters the habitat and 'create[s] isolated or tenuously connected patches of the original habitat' (Wiens, 1989 cited in Franklin et al., 2002). This results in spatial separation of habitat units which had previously been in a state of greater continuity.

The Site in its existing state is in an urban location comprising mainly built infrastructure and patches of amenity grassland; the Site will not be changing from its current use as a swimming facility upon completion of works. As such, there will not be excessive variations from the existing facility at the Site, nor does the Site hold suitable habitat to support the SCI bird species of The Murrough SPA (004186). Taking this into consideration and given the minor and short-term nature of the extension works, there is no potential for habitat or species fragmentation as a result of the Proposed Development.

4.3.3 Changes in Water Quality and Resource

A weak hydrological pathway has been identified between the Proposed Development and The Murrough SPA during Construction, in the unlikely event of uncontrolled excessive surface water runoff from the Site reaching the Wicklow_010 river waterbody, *c.* 61m to the north of the Site at its closest point.

It is worth noting that although the Site boundary is *c.* 61m from this waterbody at its closest point, the actual extension works area itself is located to the south of the existing building at the Site, *c.* 110m from the river waterbody. Furthermore, lands intercepting the Site comprise the Wicklow Town AFC club changing rooms, car park and football pitches. The river itself is flanked on either side by extensive vegetation growth, adding a further layer of vegetated buffer for any potential surface water runoff. As such, given the minor, short-term and small-scale nature of the extension works (total 6 months), the intervening infrastructure and vegetated buffer between the Site and the river waterbody, there is no potential for significant effects on The Murrough SPA (004186) via a hydrological pathway during Construction.

The Operational Phase will see the Site continue to operate as normal as a swimming facility upon completion of Construction works, and thus there will be no major deviations from the existing baseline surface water management for the Site.

4.3.4 Disturbance and / or Displacement of Species

'Disturbance' in an ecosystem is defined as any event "*that disrupts the structure of an ecosystem, community, or population, and changes resource availability or the physical environment*" (White and Pickett, 1985). The installation of proposed new infrastructure upstream, within or in close proximity to a European site may result in brief disturbance and/or displacement of QI/SCI species at European sites. Examples of disturbance to QI/SCI species that could occur as a result of Project activities include displacement due to noise generation or the deterioration in water quality as a result of sediment/pollutant discharge into a water body.

As identified in section 4.2.2.1.3, there is no potential for disturbance or displacement-related effects on any European site as a result of the Construction of the Proposed Development, due to the minor nature of works, urban location and separation distance and intervening infrastructure between the Site and The Murrough SPA (004186) providing a screening effect. Furthermore, the Operational Phase will see the Site continue to operate as normal as a swimming facility and thus there will be no major deviations above the baseline disturbance for the Site.

4.3.5 Changes in Population Density

For the reasons outlined above in section **Error! Reference source not found.** and section 4.3.4, in relation to an absence of suitable habitat for any SCI bird species within the Site, the minor, short-term nature of works and the intervening infrastructure between the Site and The Murrough SPA (004186), there is no potential for changes to population density as a result of the Construction or Operation of the Proposed Development.

4.3.6 Potential for In-combination Effects

4.3.6.1 Existing Planning Permissions

A search of planning applications located within 150m radius of the Site of the Proposed Development was conducted using online planning resources such as the National Planning Application Database (NPAD) (MyPlan.ie) and Wicklow County Council Planning Applications online map. This 150m search radius was determined to be appropriate based on the small-scale nature of the Proposed Development. Any

planning applications listed as granted or decision pending from within the last five years were assessed for their potential to act in-combination with the Proposed Development and cause likely significant effects on the relevant European sites. Long-term developments granted outside of this time period were also considered where applicable.

It is noted that the majority of the few developments within the vicinity of the Site of the Proposed Development are in relation to the nearby secondary school, football pitches and county council offices, as well as a few small-scale residential developments. A sample of the larger surrounding developments is given below in Table 4.

TABLE 4. GRANTED AND PENDING DEVELOPMENT APPLICATIONS WITHIN 150 M OF THE PROPOSED DEVELOPMENT. LOCATION AND DISTANCE GIVEN IS RELATIVE TO THE PROPOSED DEVELOPMENT.

Planning Reference	Planning Authority	Grant Date	Distance from the Site
19211	**Wicklow County Council**	**03/09/2019**	***c.* 85m North**
Development Description Permission for the provision of a 1,350 sqm, 8.85m high sports hall building, ancillary spaces and all associated site works to the east of the existing school building. **Potential for In-combination effects** A CEMP accompanies this application, which outlines measures to protect receiving waterbodies during the Construction Phase while a range of SuDS measures are provided to manage surface water runoff during Operation. Given the small-scale nature of the Proposed Development and short-term nature of works, and given the unlikelihood of uncontrolled surface water runoff from either proposal entering Lough Gill SAC, there is no potential for in-combination effects.			
191193	**Wicklow County Council**	**02/12/2019**	***c.* 90m West**
Development Description Permission for the construction of a new Discount Foodstore Supermarket with ancillary off-licence sales. The proposed development comprises: 1) The demolition of existing single storey Discount Foodstore (with ancillary off-licence use) measuring 1,738sqm gross floor space with a net retail sales area of 1,286sqm; 2) The construction of a two storey mono-pitch roofed Discount Foodstore (with ancillary off-licence use) measuring 2,485sqm gross floor space with a net retail sales area of 1,650sqm; 3) Redevelopment/reconfiguration of existing site layout and car parking; 4) Provision of free standing and building mounted signage, free standing trolley bay and enclosure, hard and soft landscaping, public lighting, electric vehicle charging infrastructure, roof mounted solar panels, surface water drainage infrastructure, cycle parking, modified pedestrian entrance, modified boundary treatments, connections to services and all other associated and ancillary development and works above and below ground level. **Potential for In-combination effects** Given that this proposal has already been constructed, only the operational phase can be considered for in-combination effects when undertaken alongside the Proposed Development. This proposal did not require an AA Screening for planning permission and as such it can be assumed that there is no potential for effects on any European sites as a result of the development. Furthermore, surface water drainage is managed through the employment of SuDS measures at the Site to ensure no uncontrolled runoff or entry of pollutants into waterways. As a result of the above, and given the small-scale nature of the Proposed Development, it is determined that there is no potential for in-combination effects.			

19717	Wicklow County Council	02/09/2019	*c.* 10m East
Development Description Permission for solar carports. **Potential for In-combination effects** Given the small-scale nature of this proposal and the intervening infrastructure between it and any European sites (no SPR linkage), and considering the similarly small-scale nature of the Proposed Development, no in-combination effects are expected.			

4.3.6.2 Relevant Policies and Plans

The local policies and plans detailed in section 2.2 above were reviewed and considered for possible in-combination effects with the Proposed Development. Each of these plans has undergone AA, and where potential for likely significant effects has been identified (e.g., in the case of the Wicklow County Development Plan), an NIS has been prepared which identifies appropriate mitigation. As such, it is considered that the plans and policies listed will not result in in-combination effects with the Proposed Development. The Wicklow County Development Plan 2022-2028 has directly addressed the protection of European sites and biodiversity through specific objectives. The above listed plans are not being relied upon to rule out potential significant effects on European sites.

TABLE 5. 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							
The Murrough Wetlands SAC (002249)	No	No	No	None	None	None	NO
Wicklow Reef SAC (002274)	No	No	No	None	None	None	NO
SAC							
The Murrough SPA (004186)	No	No	No	None	None	None	NO
Wicklow Head SPA (004127)	No	No	No	None	None	None	NO

5 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Development at Coral Leisure Centre, Station Rd, Wicklow, Co. Wicklow has been assessed taking into account:

- The nature, size and location of the proposed works and possible impacts arising from the construction works.
- The QIs 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 the possibility **may be excluded** that the Proposed Development will have a significant effect on any of the European sites listed below:

- The Murrough SPA (004186)
- The Murrough Wetlands SAC (002249)
- Wicklow Head SPA (002274)
- Wicklow Reef SAC (004127)

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 and objective information, that the possibility of any significant effects on the above listed European sites, whether arising from the project itself or in combination with other plans and projects, can be excluded in light of the above listed European sites' conversation objectives. Thus, there is no requirement to proceed to Stage 2 of the Appropriate Assessment process; and the preparation of an NIS is not required.

6 REFERENCES

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

DHLGH. (2023). Department of Housing, Local Government and Heritage. Available at: https://housinggovie.maps.arcgis.com/home/index.html/. [Accessed February 2024].

EEA (2024). European Environmental Agency. Natura 2000 [Online Map] Viewer. Available at: https://natura2000.eea.europa.eu/ [Accessed February 2024]

EPA. (2024). Environmental Protection Agency Online Mapping [ONLINE] Available at: http://www.epa.ie/ [Accessed February 2024].

European Commission. (2000). *Communication from the Commission on the precautionary principle*. Commission of the European Communities, Brussels.

European Commission. (2001). 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.

European Commission. (2019). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1555085968125&uri=CELEX:52019XC0125(07)

European Commission. (2021). 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 Brussels, 28.9.2021

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.

GSI. (2024). Geological Survey of Ireland website [ONLINE] Available at: http://www.gsi.ie/ accessed [Accessed February 2024].

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 (2021) Conservation Objectives: The Murrough Wetlands SAC (002249). Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

NPWS (2022) Conservation Objectives: The Murrough SPA (004186). First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

NPWS (2015) Site Synopsis: The Murrough SPA (004186). National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

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

Enviroguide
a DNV company

enviroguide.ie

Head Office
3D, Core C, Block 71, The Plaza, Park West, Dublin 12, D12F9TN, Ireland.
Tel: +353 1 565 4730
Email: info@enviroguide.ie

South West Regional Office
19 Henry Street, Kenmare, County Kerry, V93 CVH0, Ireland.
Tel: +353 646 641932
Email: info@enviroguide.ie

South East Regional Office
M10 Wexford Enterprise Centre, Strandfield Business Park, Rosslare Rd, Strandfield, Kerlogue, Co. Wexford, Y35 W5RD, Ireland.
Tel: +353 1 565 4730
Email: info@enviroguide.ie

Environmental Consultancy Services