APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

Proposed Strategic Housing Development

AT

Castle Street, Bray, Co. Wicklow

ON BEHALF OF

SILVERBOW LTD.

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	Silverbow Ltd.
Project Title	Proposed Strategic Housing Development
Document Title	Appropriate Assessment Screening Report

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
00	Draft for internal Review	Siobhan Atkinson *Ecologist*	Liam Gaffney *Project Ecologist*		10/06/2021
01	Draft for Client	Siobhan Atkinson *Ecologist*	Liam Gaffney *Project Ecologist*	Colin Lennon *Technical Director*	20/07/2021
02	Issue	Siobhan Atkinson *Ecologist*	Liam Gaffney *Project Ecologist*	Colin Lennon *Technical Director*	28/09/2021
03	Issue	Siobhan Atkinson *Senior Ecologist*	Colin Lennon *Technical Director*	Colin Lennon *Technical Director*	13/04/2022

REPORT LIMITATIONS

Synergy Environmental Ltd. t/a Enviroguide Consulting (hereafter referred to as "Enviroguide") has prepared this report for the sole use of Silverbow Ltd. 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.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Silverbow Ltd to prepare an Appropriate Assessment Screening Report in relation to a Proposed Strategic Housing Development at Castle St., Bray Co. Wicklow. 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). SACs and SPAs are collectively known as Natura 2000 or 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 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.

A competent authority must determine that an Appropriate Assessment is required in respect of any European site where, following screening, it cannot be excluded that the plan or project will have a significant effect on the European site, in view of its conservation objectives.

This AA Screening Report has been undertaken to determine whether the Proposed Development is likely to have a significant effect, alone or in combination with other plans and projects, on any European site, in view of their conservation objectives.

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.

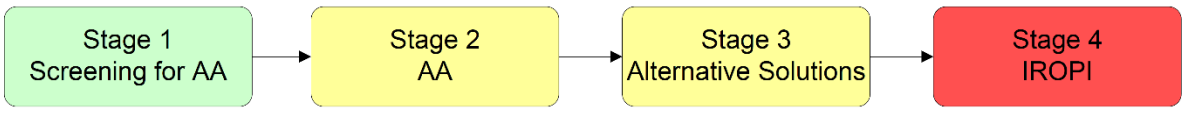

FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

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: *Appropriate Assessment (AA).* The second stage of the AA requires the competent authority to determine whether the project or plan (either alone or in combination with other projects or plans) will have an adverse effect on the integrity of the European site, having regard to the conservation objectives of the site and its ecological structure and function. The developer must provide a Natura Impact Statement (NIS) to the competent authority to inform the AA, which is a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites. It must include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites. The competent authority must consult with the public in relation to any plan or project that requires AA. If the competent authority determines that the plan or project would have an adverse effect on the integrity of any European site, it can only grant consent after proceeding through steps 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.

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);
- *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 (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 from Wicklow County Council.

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

2.4 Field surveys

A Habitat and Breeding Bird Survey of the Site of the Proposed Development was conducted by Enviroguide on the 7th May 2021. Summer bat surveys were carried out between the 4th and 10th June 2021. The results of this survey are provided in the Ecological Impact Assessment accompanying this application.

2.5 Assessment of Significant Effects

The potential for significant effects that may arise from the Proposed Development was 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 is located in Bray, County Wicklow. The Site is located to the north of Caste Street, and to the west of Dwyer Park at the former Heiton Buckley site. An area of scrub borders the Site at the northern and north-western boundary.

3.2.2 Description of Development

The proposed Strategic Housing Development will consist of the following:

- Demolition of all existing vacant commercial and residential buildings and sections of boundary wall;

- Construction of a mixed-use residential and commercial development in 2 blocks ranging in height from 1 to 7 storeys set around a central podium level amenity space and a separate single storey pavilion building;
- The residential element will accommodate 139 no. apartments comprising 33 no. 1-bedroom units, 91 no. 2-bedroom units and 15 no. 3-bedroom units, with associated balconies;
- Block A (3-7 storeys) will accommodate 93 no. apartments and a creche at ground floor;
- Block B (1-6 storeys) will accommodate 46 no. apartments, 2 no. commercial units fronting Castle Street and a communal resident's room;
- The pavilion building will accommodate a community facility on Castle Street;
- Vehicular access from Castle Street to 59 no. undercroft car parking spaces and 3 no. creche drop-off spaces;
- Pedestrian access from Castle Street and Dwyer Park;
- New surface water sewer along Castle Street from the site to Bray Bridge;
- The development will include landscaped communal open spaces, boundary treatments, substation, plant rooms, bin stores, bicycle parking, signage and all associated site works and services.

3.2.3 Existing waste and surface water infrastructure

The majority of the Bray and environs plan area is served by the Shanganagh-Bray wastewater treatment plant, which opened in January 2013. This treatment plant has a design capacity of 186,000 population equivalent and is thus far operating with no capacity issues. From inspection of the IW Water Services Mapping and the topographic survey of the site, it is apparent that the site currently discharges to the existing 375mm diameter Vitrified Clay combined sewer on the opposite side of Castle Street (Corrigan Hodnett Consulting, 2021a). Based on the age of the existing development on the site, the most likely scenario is that the surface water collected from roofs and other areas within the development currently discharges to the existing combined sewer network. It is noted that the site is almost completely impermeable with the exception of the garden areas of the two houses. The result is that all rainwater is discharged to a combined sewer network in Castle Street. There is currently no form of treatment or attenuation prior to discharge (Corrigan Hodnett Consulting, 2021a).

3.2.4 Proposed waste and surface water infrastructure

Given the scale and type development proposed a new wastewater connection will be required. Based on the information available it is considered that a gravity drainage connection from the site is achievable with the preferred connection point being to the existing 375mm diameter combined sewer in Castle Street to the southeast of the site at the junction of Castle Street and Dwyer Park (Corrigan Hodnett Consulting, 2021a).

Further to consultation with Wicklow County Council, the preferred connection location for surface water discharge is to the Dargle River via a new surface water pipe which will have to be constructed as part of the works as there are no surface water sewers in the area (Corrigan Hodnett Consulting, 2021a). Surface water attenuation and treatment is included as part of the surface water management and disposal proposals in accordance with the requirements of the Greater Dublin Strategic Drainage Study. The attenuation storage is provided within the

confines of the site and discharges, via a flow control device (Hydrobrake Vortex flow control, or similar) to an outlet manhole within the public realm which is the head of the run for the new connecting pipework from the site to the proposed outfall at the River Dargle (Corrigan Hodnett Consulting, 2021a).

3.2.5 Description of the Construction Phase

The following is extracted from the Construction Management Plan prepared by Corrigan Hodnett Consulting (2021b).

The Site is a brown field site and will generally require stripping of topsoil, existing surfacing and demolition of the former builders' providers warehousing derelict buildings.

The outline method statement for the site clearance enabling works are as follows:

- Establish a site set-up and welfare facilities;
- Carry out a detailed services survey of the site to identify all buried services, determine what services are live, redundant and that may potentially serve neighbouring properties;
- Carry out any necessary services diversions and decommissioning works;
- All site waste materials associated with the clearing of the site are to be separated for reuse, recycling or off-site waste as deemed appropriate per the implemented Construction and Demolition Waste Management Plan.

Given the nature of the development there will be no bulk excavations required on the Site to accommodate any basement structure. Localised excavations will only be required for other typical substructures such as shallow surface water attenuation tanks. Excavations can also be expected for installation of general site infrastructure. Excavations in this regard are situated such that they are not anticipated to have any effect on the existing surrounding boundary features.

3.2.5.1 *General Construction Methodology*

Apartment Structures

The under-croft areas which accommodate the car parking and other ancillary spaces is such that there is no basement structure requiring a bulk dig.

The super structure of the apartments is anticipated to be a reinforced concrete frame which will be supported by transfer structures at appropriate levels to facilitate a supporting grid of columns and /or localised walls to suit the car parking or other ancillary use spaces.

The sub-structures will comprise a grid of piles founded in the anticipated rock head at a depth of circa 8 to 10m. Specialist pile installations will be of low vibration augured construction.

Site Infrastructure

It is anticipated that works to install civil infrastructure will commence in advance of or at least be phased with the relevant areas of buildings progress. The drainage infrastructure works will be co-ordinated as required by the relevant authority and Irish Water as necessary.

Following communications with the relevant local authority departments, the drainage strategy requires an extent of civil infrastructure which is routed externally of the site. The surface water drainage outfall is proposed to follow a route to the adjacent River Dargle at the Castle Street

Bridge. Road opening licences etc., will be obtained from the local authority as appropriate. Connection licences and/or connection agreements as appropriate will need to be obtained in advance of such works commencing in the public domain.

There is a degree of realignment of existing road and footpaths etc. local to the site all in the public domain.

Traffic management will require particular consideration along with any other relevant safety and health concerns within the surrounding live environs.

FIGURE 2. SITE LOCATION

FIGURE 3. LANDSCAPE MASTERPLAN.

3.3 Existing Environment

3.3.1 Geology, Hydrology and Hydrogeology

The Site of the Proposed Development is within the Avoca-Vartry catchment and Dargle_SC_010 sub catchment. There are no river waterbodies within the Site of the Proposed Development.

The River Dargle is the closest river waterbody to the Site and is approximately 150 metres to the southeast of the Core Site Area. The Dargle is a Designated Salmonid Water under S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations 1988. The river was assigned *Good* status (Q4*) by the EPA at People's Park (RS10D010270) in 2015. The river is considered to be *Not At Risk* of not meeting its Water Framework Directive (WFD) status objectives (EPA, 2021).

The Dargle discharges into the Dargle Estuary and Southwestern Irish Sea - Killiney Bay coastal waterbody. The status of the Dargle Estuary is currently unassigned and its WFD risk status is under review. The WFD status of Southwestern Irish Sea - Killiney Bay is *High* and it is *Not At Risk* of not achieving its Water Framework Directive status objectives (EPA, 2021).

The Site of the Proposed Development is situated on the Wicklow (IE_EA_G_076) groundwater body. The risk status of this groundwater body is under review (EPA, 2021). The aquifer type in the area is a *Locally Important Aquifer (Ll) - Bedrock which is Moderately Productive only in Local Zones*. The groundwater rock units underlying the aquifer are classified as Ordovician Metasediments. The level of vulnerability to groundwater contamination from human activities is *Low-Moderate* (GSI, 2021). The soil is classed as *urban* the subsoil is *made ground* (EPA, 2021).

3.3.2 Habitats

The Site is predominantly composed of buildings and artificial surfaces with areas of *Buddleja davidii* scrub and ornamental flower beds and borders. Japanese Knotweed *Reynoutria japonica* was recorded at the Site.

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.

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 Precautionary 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 nine SACs and four 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 2 no. European Sites within the ZOI were identified. The European Sites linked to the Proposed Development include:

- Bray Head SAC (000714)
- Rockabill to Dalkey Island SAC (003000)

These sites are connected to the Proposed Development Site via either hydrological or land pathways (Table 1).

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 BOLD.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Special Areas of Conservation (SAC)			
Bray Head SAC (000714)	[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths	1.7 km	There is a **land pathway** between the Site and this SAC. Bray Head is a popular recreational area and is especially used by walkers. It is possible that the Proposed Development will result in an increase in footfall and visitor numbers within the SAC, which could result in habitat loss/alteration/erosion as a result of the increase in local population numbers during the Operational Phase of the Proposed Development. As this Site is designated for its terrestrial habitats, no significant effects due to surface water discharges during both the Construction or Operational Phases are possible. *This site is therefore considered further in this Screening Report.*
Ballyman Glen SAC (000173)	[7220] Petrifying springs with tufa formation (Cratoneurion)* [7230] Alkaline fens	2 km	There is **no significant hydrological pathway or land pathway**. All of these SACs are located either upstream of the Proposed Development Site or in a separate surface water catchment. The hydrological pathway to the Murrough Wetlands SAC is deemed to be insignificant given the considerable open marine water buffer between the Site of the Proposed Development and the SAC; over which any potential surface water discharges containing sediment, silt and/or pollutants arising from the Construction/Operation Phases of the Proposed Development would become diluted to non-discernible levels.
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)*	4.1 km	
Glen of the Downs SAC (000719)	[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	6.9 km	
The Murrough Wetlands SAC (002249)	[1210] Annual vegetation of drift lines [1220] Perennial vegetation of stony banks [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows *Juncetalia maritimi*	11.0 km	

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	[7210] Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* [7230] Alkaline fens*		In addition, the intervening distances between the Site and the SACs are sufficient to exclude the possibility of significant effects on the SACs 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. *These sites are therefore not considered further in this Screening Report.*
Carriggower Bog SAC (000716)	[7140] Transition mires and quaking bogs	11.3 km	
Wicklow Mountains SAC (002122)	[3110] Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3130] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [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) [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] Otter (*Lutra lutra*)	7.3 km	**None** – There is no hydrological pathway. This SAC is located upstream of the Proposed Development in the Wicklow Mountains. The intervening distances 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. Wicklow Mountains SAC is designated for a range of habitats and the conservation of Otter found within the rivers of the Wicklow mountains. Due to the distance between the Site and Wicklow Mountains SAC, and the lack of hydrological connectivity between them, this SAC has not been considered further in this AA Screening Report. The impact of the Proposed Development on *local* Otter populations adjacent to the Proposed Development Site in the Dargle has been addressed

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			in the Ecological Impact Assessment accompanying this application. *This site is therefore not considered further in this Screening Report.*
Rockabill to Dalkey Island SAC (003000)	[1170] Reefs [1351] Harbour porpoise *Phocoena phocoena*	4.6 km	There is a weak, hydrological link between the Proposed Development Site and Rockabill to Dalkey Island SAC. Records from the National Biodiversity Data Centre indicate the presence of Harbour Porpoise, which is listed as a QI species for this SAC in Bray Harbour. As such, there is **indirect connectivity** between the Proposed Development Site and this SAC via a hydrological connection between the Site and Bray Harbour. *This site is considered further in this Screening Report.*
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	10.2 km	**None** - This SAC is located within Dublin Bay. The **hydrological pathway is insignificant** given the considerable open marine water buffer between the Site of the Proposed Development and the SAC over which any potential surface water discharges containing sediment, silt and/or pollutants arising from the Construction/Operation Phases of the Proposed Development would become diluted to non-discernible levels. Wastewater from the Site will be treated at Shanganagh-Bray WwTP, which is currently operating with no capacity issues. 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

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			Operational Phase; and increased human presence at the Site during Construction and Operational Phase. *This site is therefore not considered further in this Screening Report.*
Special Protected Area (SPA)			
Dalkey Islands SPA (004172)	[A192] Roseate Tern *Sterna dougallii* [A193] Common Tern *Sterna hirundo* [A194] Arctic Tern *Sterna paradisaea*	7 km	**Pathways (e.g. hydrological, land) to the SPA sites are considered insignificant** given the considerable open marine water buffer between the Site of the Proposed Development and the SPAs themselves (over which any potential surface water discharges containing sediment, silt and/or pollutants arising from the Construction/Operation Phases of the Proposed Development would become diluted to non-discernible levels). In addition, the intervening distance between the Site and the SPAs is sufficient to exclude the possibility of significant effects on SCI bird species within 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. Wastewater from the Site will be treated at Shanganagh-Bray WwTP, which is currently operating with no capacity issues. Irish Wetland Bird Survey (I-WeBS) data between winter of 2008/2009 and 2017/2018 indicate the presence of Herring Gull *Larus argentatus,* Red-throated Diver *Gavia stellate,* Common Tern *Sterna hirundo,* Light-bellied Brent Goose *Branta bernicla hrota,* Oystercatcher *Haematopus ostralegus* and Black-headed Gull *Chroicocephalus ridibundus* in Bray Harbour. Gulls were the
South Dublin Bay and River Tolka Estuary SPA (004024)	[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 canutus* [A144] Sanderling *Calidris alba* [A149] Dunlin *Calidris alpina alpina* [A157] Bar-tailed Godwit *Limosa lapponica* [A162] Redshank *Tringa totanus* [A179] Black-headed Gull *Chroicocephalus ridibundus* [A192] Roseate Tern *Sterna dougallii* [A193] Common Tern *Sterna hirundo* [A194] Arctic Tern *Sterna paradisaea* [A999] Wetlands	10.1 km	
The Murrough SPA (004186)	[A001] Red-throated Diver *Gavia stellate* [A043] Greylag Goose *Anser anser* [A046] Light-bellied Brent Goose *Branta bernicla hrota* [A050] Wigeon *Anas penelope* [A052] Teal *Anas crecca* [A179] Black-headed Gull *Chroicocephalus ridibundus* [A184] Herring Gull *Larus argentatus* [A195] Little Tern *Sterna albifrons*	12.0 km	

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			most common species recorded whereas Common Tern, Light-bellied Brent Goose and Oystercatcher were recorded in very low numbers. No SCI species were recorded in nationally or internationally important numbers. Due to the distance between the Site and SPAs, the lack of significant hydrological connectivity between them and the absence of significant *ex-situ* habitat within the boundary of the Proposed Development site it is considered there is no possibility for significant effects on these SPAs. *These sites are therefore not considered further in this Screening Report.*
Wicklow Mountains SPA (004040)	[A098] Merlin Falco columbarius [A103] Peregrine Falco peregrinus	7.8 km	**None** – This SPA is located in the mountains to the west of the Proposed Development. The intervening distance between the Site and the SPA is sufficient to exclude the possibility of significant effects on the SPA 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. There is an absence of any suitable ex-situ habitat for QI/SCI species within the Site of the Proposed Development. *This site is therefore not considered further in this Screening Report.*

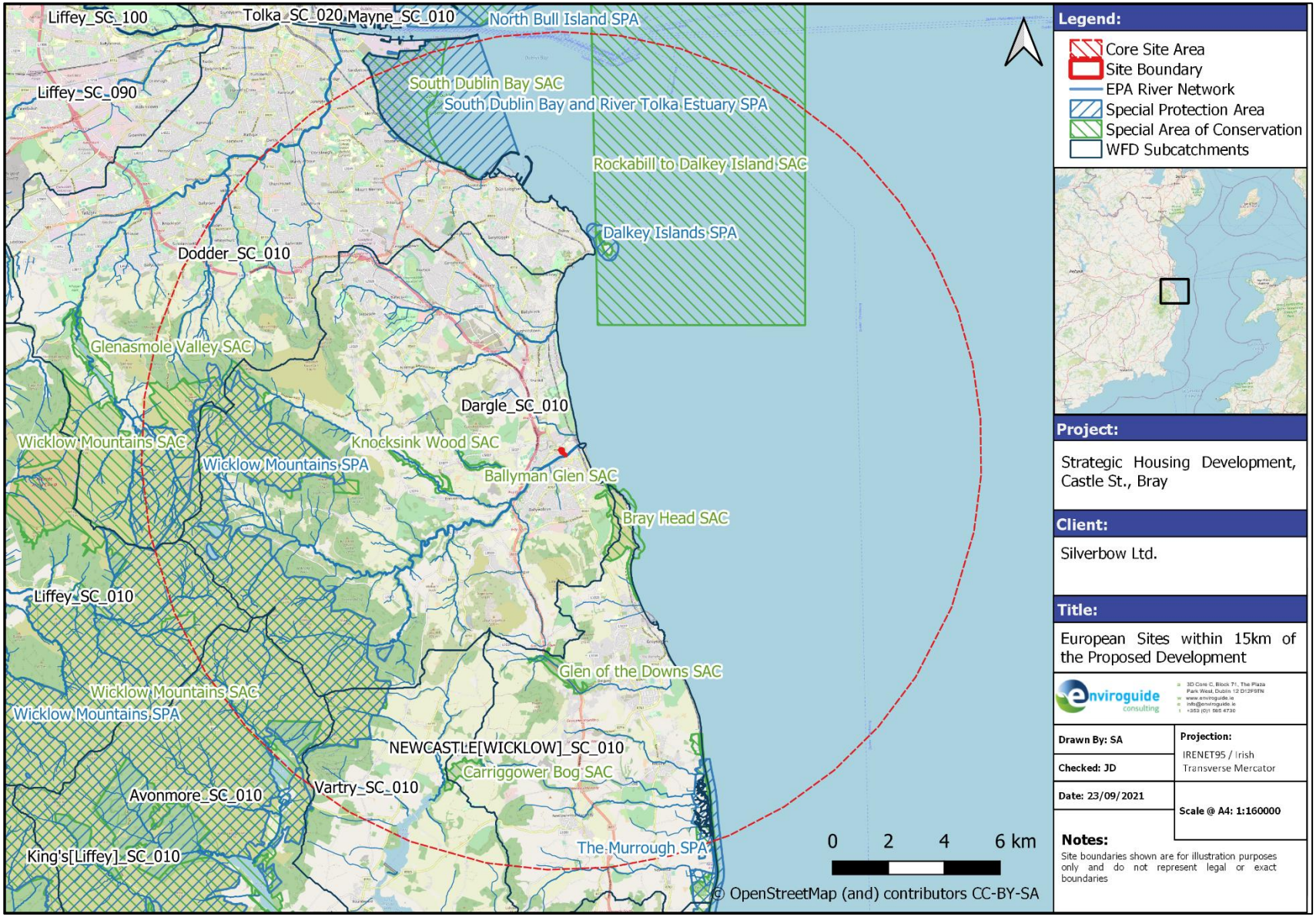

FIGURE 4. EUROPEAN SITES WITHIN 15KM BUFFER OF THE PROPOSED DEVELOPMENT SITE.

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:

- Bray Head SAC (000714)
- Rockabill to Dalkey Island SAC (003000)

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 Site 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 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** (final Construction programme is yet to be scheduled but expected to be circa 2 years)
  - 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;
  - Foul water from the Proposed Development leading to increased loading on wastewater treatment plants
  - 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 direct loss or alteration of habitat as a result of the Proposed Development.

Bray Head SAC is located approximately 1.7 km to the south-east of the Site. This European Site is a popular recreational area and is especially used by walkers. It is possible that the Proposed Development will result in an increase in footfall and visitor numbers within the SAC, which could result in habitat loss/alteration/erosion as a result of the increase in local population numbers during the Operational Phase of the Proposed Development. However, according to the Wicklow County Development Plan 2016-2022, Wicklow County Council is committed to ensuring sustainable recreational use of the outdoors in County Wicklow in accordance with the objectives of the current County Wicklow Outdoor Recreational Strategy and in consultation with the Wicklow Uplands Council. The following outlines relevant objectives relating to the recreational use of natural resources in the Wicklow County Development Plan 2016-2022:

NH39: To facilitate the use of natural areas for active outdoor pursuits, subject to the highest standards of habitat protection and management and all other normal planning controls.

NH44: To implement the measures set out in the Bray Head Special Amenity Area Order (SAAO).

The Bray Head SAAO (2007) is designed to preserve and enhance the amenity value of the lands at Bray Head, Co. Wicklow. The following objectives are of relevance:

1.3: To manage the area in order to conserve its natural and cultural assets and realise its exceptional potential as a place for informal recreation, tourism and environmental education.
1.6: To preserve existing areas of heathland, maritime grassland and woodland areas.
1.12: It will be an objective of the Order to protect the coast and to prevent any works that could exacerbate, and promote works that would abate, coastal erosion.

As noted previously, Wicklow County Council is committed to ensuring sustainable recreational use of the outdoors in County Wicklow in accordance with the objectives of the current County Wicklow Outdoor Recreational Strategy and in consultation with the Wicklow Uplands Council. It is deemed that the Proposed Development will have a negligible impact on habitats within Bray Head SAC due to the Special Amenity Area Order in place for Bray Head.

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*

There is no hydrological connection between the Site and Bray Head SAC. It is proposed to construct a new surface water pipe along Castle Street which will outfall to the River Dargle. The outfall connection of this sewer will be to the existing culvert on the west side of Bray Bridge (Corrigan Hodnett, 2021a). As such, there is a weak hydrological connection between the Site and Rockabill to Dalkey Island SAC. However, **the hydrological pathway to this European site is insignificant** given the considerable open marine water buffer between the Site of the Proposed Development and the SAC over which any potential surface water discharges containing sediment, silt and/or pollutants arising from the Construction/Operation Phases of the Proposed Development would become diluted to non-discernible levels. Wastewater from the Site will be treated at Shanganagh-Bray WwTP, which is currently operating with no capacity issues.

3.5.2.4 *Disturbance and / or Displacement of Species*

The potential for disturbance/displacement impacts of fauna that are listed as qualifying interests or special conservation interests of a designated site through run-off, noise and/or visual cues arising from the Proposed Development was considered as part of this assessment. This also included *ex-situ* disturbance/displacement impacts on highly mobile species that are qualifying interests of the relevant designated sites (e.g. Harbour Porpoise). *Ex-situ* impacts can occur where highly mobile species occur outside of the boundaries of their designated sites (e.g. to forage or commute).

There is no suitable habitat for any QI species at the Site of the Proposed Development, which is comprised primarily of buildings and artificial surfaces. There is a hydrological pathway between the Site and Harbour Porpoise which is listed as a QI species for Rockabill to Dalkey Island SAC via the proposed new surface water sewer and outfall. Records from the National

Biodiversity Data Centre indicate the presence of Harbour Porpoise within the general area around Bray Harbour. There are no species listed as qualifying interests for Bray Head SAC.

It is deemed that **there will be no significant effects** on Harbour Porpoise as a result of the Proposed Development due to:

- The small-scale and temporary nature of the works adjacent to the River Dargle, which will consist of the installation of a new surface water pipe along Castle Street and an outfall connection to the existing culvert on the west side of Bray Bridge (Corrigan Hodnett, 2021a). It is understood by Enviroguide Consulting that there will no requirement for instream works (Corrigan Hodnett, pers comm).
- The low volume of any surface water run-off relative to the volume of the receiving marine environment in the Irish Sea;
- The potential for dilution of any pollutants (e.g., silt or hydrocarbons) in the marine and freshwater environment. As SuDS will be incorporated into the new drainage infrastructure *in accordance with the Greater Dublin Regional Code of Practice for Drainage Works,* it is considered highly unlikely that any pollutants will be discharged into the marine/freshwater environment during the Operational Phase. Attenuation storage and an oil interceptor are provided within the confines of the site and surface water will discharge via a flow control device (Hydrobrake Vortex flow control, or similar). It should be noted that SuDS are in no way included as a way of mitigating potential effects on European Sites as a result of the Proposed Development.

3.5.2.5 *Changes in Population Density*

For the same reasons outlined in section 3.5.2.4 above, there will be no changes in the population density of Harbour Porpoise as a result of the Proposed Development.

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. Larger-scale developments identified within the vicinity of the Proposed Development are as follows:

SH202103: Change of use of lands from golf course use to residential and other uses consisting of 591 no. residential units and c. 1,336 sq.m of other uses comprising of a retail unit, 2 no. commercial units, a childcare facility and a café.

PRR 21/869 Part VIII - Bray Sustainable Transport Bridge: The construction of the Bray Sustainable Transport Bridge, link road and associated works in the townlands of Bray, Bray Commons and Ravenswell. The proposed bridge and link road will consist of a two-lane public transport road 3.25m wide and variable width pedestrian, cyclist and shared path facilities. A new pedestrian boardwalk is proposed along the southern bank wall to link the existing walkway to the bridge crossing.

15535: Extension of duration for a development on a site of c. 0.149 hectares, lying with the St. John of God Complex, Ravenswell, Dublin Road, Bray, Co. Wicklow. The development will consist of a) a single carriageway vehicular road (c. 59m in length) to serve the 'lower' lands at the St. John of God Complex. This road will be accessed off the proposed northern access road at the Bray Golf Club lands (the alignment of which immediately adjoins the application

site to the east) as applied for to Bray Town Council under Reg. Ref. 07/194 and to Dun Laoghaire-Rathdown County Council under Reg. Ref. D074/1495. B) Associated site development works

20672: Extension of duration for a mixed-use development of residential (603 units), community and commercial and all other associated works on a site of c.15.99 hectares

It is considered that significant in-combination effects of the Proposed Development and the aforementioned developments will not arise as:

- The distances between the proposed and permitted developments are sufficient to exclude the possibility of significant effects on European Sites arising from *combined* emissions of noise, dust, airborne 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 construction phase of the Proposed Development will be short-term in duration.
- The WwTP serving the Site is currently below capacity (Shanganagh-Bray WwTP).
- The Special Amenity Area Order in place for Bray Head ensuring management and conservation by Wicklow County Council.
- The small-scale and temporary nature of the works adjacent to the Dargle River.

Relevant Policies and Plans

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

- County Wicklow Biodiversity Action Plan 2010 - 2015
- County Wicklow Development Plan 2016 - 2022
- Bray Municipal District Local Area Plan 2018 - 2024

The Wicklow Biodiversity Action Plan 2010 - 2015 is set out to protect and improve biodiversity, and as such will not result in negative in-combination effects with the Proposed Development.

The Site is listed as an “Opportunity Site” in the Bray Municipal District LAP. The Objectives for this Site within the LAP are as follows:

Objectives OP2

- To provide for a mixed-use development including commercial, retail, residential, community and cultural uses;
- Active commercial, community or cultural uses will generally be required at ground and street levels, with residential use above, other than (a) along the Dwyer Park frontage and (b) on the truncated northernmost sector of the site.

- A high-density development, that makes the best use of this serviced urban land will be expected, in a 3-4 storey development;
- The design (including height) of any development shall pay particular regard to the height of immediately adjoining (mostly 2-storey) residences and in general heights shall not exceed 3-storeys along Dwyer Park;
- Any development on the lands shall include street frontage directly onto Castle Street, ideally with limited set back across the frontage of the site; (other than that required for adequate pedestrian / cyclist usage); any set back in excess of 5m from the road kerb will require to be justified based on specific design criteria and in any event, buildings shall not be set back any further than 15m from the kerb.
- Those parts of any proposed development that adjoin existing streets shall provide for an active street frontage that addresses and connects with the public domain.

It is also an objective of the Bray LAP to improve the Castle Street – Dublin Road (Objective RO7). This objective is dependent on available funding.

Upon examination of the listed plans, it is concluded that there is no possibility for any in-combination effects between these projects and plans and the Proposed Development.

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
Bray Head SAC (000714)	No	No	No	None	None	None	NO
Ballyman Glen SAC (000173)	No	No	No	None	None	None	NO
Knocksink Wood SAC (000725)	No	No	No	None	None	None	NO
Glen of the Downs SAC (000719)	No	No	No	None	None	None	NO
The Murrough Wetlands SAC (002249)	No	No	No	None	None	None	NO
Carriggower Bog SAC (000716)	No	No	No	None	None	None	NO
Wicklow Mountains SAC (002122)	No	No	No	None	None	None	NO
Rockabill to Dalkey Island SAC (003000)	No	No	No	None	None	None	NO
South Dublin Bay SAC (000210)	No	No	No	None	None	None	NO
Dalkey Islands SPA (004172)	No	No	No	None	None	None	NO
South Dublin Bay and River Tolka Estuary SPA (004024)	No	No	No	None	None	None	NO
The Murrough SPA (004186)	No	No	No	None	None	None	NO
Wicklow Mountains SPA (004040)	No	No	No	None	None	None	NO

4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Strategic Housing Development at Castle St., Bray, 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 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:

- Bray Head SAC (000714)
- Ballyman Glen SAC (000173)
- Knocksink Wood SAC (000725)
- Glen of the Downs SAC (000719)
- Wicklow Mountains SAC (002122)
- The Murrough Wetlands SAC (002249)
- Carriggower Bog SAC (000716)
- Rockabill to Dalkey Island SAC (003000)
- South Dublin Bay SAC (000210)
- Dalkey Islands SPA (004172)
- South Dublin Bay and River Tolka Estuary SPA (004024)
- Wicklow Mountains SPA (004040)
- The Murrough SPA (004186)

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

Corrigan Hodnett Consulting (2021a). Engineering Services Report for Castle Street, Bray, County Wicklow. Doc Ref. CHC-00-XX-RP-C-00001

Corrigan Hodnett Consulting (2021b). Outline Construction Management Plan for Castle Street, Bray, County Wicklow. Doc Ref. CHC-00-XX-RP-C-00003

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. (2021). Environmental Protection Agency Online Mapping [ONLINE] Available at: http://www.epa.ie/ [Accessed May 2021].

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

European Communities. (2002). 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. (2021). Geological Survey of Ireland website [ONLINE] Available at: http://www.gsi.ie/ accessed [Accessed May 2021].

Greater Dublin Strategic Drainage Study. (2005). Phase 3 - 2031 System Performance Assessment. Rathmines and Pembroke (High-Level) Catchment. Drawing number: GDSDS/MAR3079/F005/P3-003/ TILE 2.

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). Ballyman Glen SAC. Site Synopsis.

NPWS (2013b). Bray Head SAC. Site Synopsis.

NPWS (2013c). Carriggower Bog SAC. Site Synopsis.

NPWS (2013d). Glen of the Downs SAC. Site Synopsis.

NPWS (2014a). Rockabill to Dalkey Island SAC. Site Synopsis.

NPWS (2014b). The Murrough Wetlands SAC. Site Synopsis.

NPWS (2014c). Wicklow Mountains SPA. Site Synopsis.

NPWS (2015a). Dalkey Islands SPA. Site Synopsis.

NPWS (2015b). South Dublin Bay SAC. Site Synopsis.

NPWS (2015c). South Dublin Bay and River Tolka Estuary SPA. Site Synopsis.

NPWS (2015d). The Murrough SPA. Site Synopsis.

NPWS (2017a). Wicklow Mountains SAC. Site Synopsis.

NPWS (2017b). Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

NPWS (2019). Knocksink Woods SAC. Site Synopsis.

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

APPENDIX I - EUROPEAN SITE SYNOPSES

Site Name: Bray Head SAC

Site Code: 000714

This coastal site is situated in the north-east of Co. Wicklow between the towns of Bray and Greystones. The bedrock geology is Cambrian quartzites and shales (with mudstones and greywackes). Bray Head consists of a plateau of high ground, with five prominent quartzite knolls and has a maximum height of 241 m. The more exposed higher ground has a covering of shallow acidic soils, with protruding bedrock and scree. Elsewhere, deeper soils are formed by drift deposits and are calcareous in character.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1230] Vegetated Sea Cliffs

[4030] Dry Heath

Dry heath is the principal habitat over much of Bray Head. The vegetation of the upper plateau area is dominated by dwarf shrubs, mainly Heather (Calluna vulgaris), Bell Heather (*Erica cinerea*) and gorse (*Ulex europaeus* and *U. gallii*). Broom (*Cytisus scoparius*) also occurs, and associated with the gorse and broom is the Red Data Book species Greater Broomrape (*Orobanche rapum-genistae*). In the areas where the shrubs are less dense Tormentil (*Potentilla erecta*), Common Milkwort (*Polygala vulgaris*), Heath Bedstraw (*Galium saxatile*) and a variety of grasses (e.g. *Aira praecox*, *Agrostis tenuis*, *Deschampsia flexuosa*) are present. Where rock outcrops occur species such as English Stonecrop (*Sedum anglicum*) and Sheep's-bit (*Jasione montana*) are found. Bracken (*Pteridium aquilinum*) is dominant in some areas.

The heath communities which occur on the dry slopes above the sea cliffs, especially those south-facing, are more open in character and dominated by grasses rather than dwarf shrubs. The annual plant communities which develop here are typical of those found only on sites in south-eastern Ireland. Common species include Wood Sage (*Teucrium scorodonia*), clovers (*Trifolium dubium* and *T. campestre*), Scarlet Pimpernel (*Anagallis arvensis*) and Field Madder (*Sherardia arvensis*). An uncommon annual species which can appear abundantly in the heath after a fire event is Yellow Fumitory (*Corydalis claviculata*). Some rare plants are found in this habitat, notably Bird's-foot (*Ornithopus perpusillus*) and Spring Vetch (*Vicia lathyroides*), both Red Data Book species.

Calcareous dry grassland, typically species-rich, occurs on deposits of glacial till. The primary grass species are Quaking-grass (*Briza media*), Smooth Meadow-grass (*Poa pratensis*) and Red Fescue (*Festuca rubra*). Typical calcicole herbs include Pale Flax (*Linum bienne*), Salad Burnet (*Sangusiorba minor*), Burnet-saxifrage (Pimpinella saxifraga), Carline Thistle (*Carlina vulgaris*) and Kidney Vetch (*Anthyllis vulneraria*). Orchids are a feature of this habitat, with five species known from the area - Pyramidal Orchid (*Anacamptis pyramidalis*), Common Spotted-orchid (*Dactylorhiza fuchsii*), Common Twayblade (*Listera ovata*), Fragrant Orchid (Gymnadenia conopsea) and Bee Orchid (Ophrys apifera). Bloody Crane's-bill (*Geranium*

sanguineum) was refound recently in this community at Bray Head - this is a typical species of the Burren and associated areas, and is very rare in eastern Ireland.

Rocky sea cliffs, another Annex I habitat, form most of the seaward boundary at this site and extend for approximately 2 km. Steep clay cliffs extend southwards for a further 1 km, with a small area of clay cliff also at the northernmost part of site. The rocky cliffs are divided by a railway track built in the 1800s. The lower cliffs are fairly steep in places but above the track they are less steep, and often support heath or dry grassland vegetation. In parts the cliffs are up to 60 m in height. Typical species of the more exposed rock areas are Common Scurvygrass (*Cochlearia officinalis*), Rock Sea-spurrey (*Spergularia rupicola*), Thrift (*Armeria maritima*), Sea Campion (*Silene vulgaris subsp. maritima*), and Sea Samphire (*Crithmum maritimum*). On some sections of the cliff face, the locally scarce Tree Mallow (*Lavatera arborea*) is found. Species of the upper cliff flora include Kidney Vetch and Red Fescue. A widespread species found from the mid to upper zones of the cliff face is Ivy (*Hedera helix*), and associated with this is the scarce Wild Madder (*Rubia peregrina*). The clay cliffs in the southern part of the site are steep and unstable and have little vegetation.

A stand of mostly native woodland occurs in the northern part of the site. This is a fairly pure Sessile Oak (*Quercus petraea*) dominated woodland, with some Ash (*Fraxinus excelsior*) and Downy Birch (*Betula pubescens*). Understorey trees include Holly (*Ilex aquifolium*) and Hawthorn (*Crataegus monogyna*). The wood is on shallow drift and the ground flora often has species more associated with heath than woodland. Other habitats which are found at this site include bedrock shore, a sandy/shingle beach and an area of shallow marine water.

Bray Head has an important seabird colony. A census in 1999 gave the following populations: Fulmar (55 pairs), Shag (8 pairs), Kittiwake (781+ pairs), Guillemots (286 individuals), Razorbills (191 individuals) and Black Guillemots (123 individuals). A few pairs of gulls also breed. Both the Kittiwake and Black Guillemot populations are of national importance. Peregrine Falcon, an Annex I species of the E.U. Birds Directive, breeds at the site, as do Raven and Kestrel. Characteristic bird species of the heath areas include Stonechat, Whitethroat, Linnet and Skylark.

The heath and grassland habitats at this site are threatened by reclamation for agriculture and also by frequent burning. The site is a popular recreational area and is especially used by walkers

Site Name: Rockabill to Dalkey Island SAC

Site Code: 003000

This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muglins and Rockabill islands.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1170] Reefs

[1351] Harbour Porpoise (*Phocoena phocoena*)

Reef habitat is uncommon along the eastern seaboard of Ireland due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. Species recorded in the intertidal included *Fucus spiralis*, *Fucus serratus*, *Pelvetia canaliculata*, *Ascophyllum nodosum*, *Semibalanus balanoides* and *Necora puber*. Subtidally, a wide range of species include *Laminaria hyperborea*, *Flustra folicacea*, *Alaria esculenta*, *Halidrys siliquosa*, *Pomatocereos triqueter*, *Alcyonium digitatum*, Metridium senile, *Caryophyllia smithii, Tubularia indivisa*, *Mytilus edulis*, *Gibbula umbilcalis*, Asterias rubens, and *Echinus esculentus*. These reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.

The area selected for designation represents a key habitat for the Annex II species Harbour Porpoise within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons. The selected site contains a wide array of habitats believed to be important for Harbour Porpoise including inshore shallow sand and mudbanks and rocky reefs scoured by strong current flow. The site also supports Common Seal and Grey Seal, for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenosed Dolphins has also occasionally been recorded in the area. A number of other marine mammals have been recorded in this area including Minke, Fin and Killer Whales and Risso's and Common Dolphins.

The coastal environment of Co. Dublin is a very significant resource to birds with some nationally and internationally important populations. Of particular note in this site are the large number of terns (Arctic, Common and Roseate) known to use Dalkey Island as a staging area

(approx. 2,000) after breeding. Other seabirds commonly seen include Kittiwake, Razorbill, Guillemot, Puffin, Fulmar, Shag, Cormorant, Manx Shearwater, Gannet and gulls.

This site is of conservation importance for reefs, listed on Annex I, and Harbour Porpoise, listed on Annex II, of the E.U. Habitats Directive.