



**Appropriate Assessment Screening Report
for a Strategic Housing Development (SHD) at
Golf Lane, Carrickmines, Co. Dublin**

prepared for John Spain Associates

on behalf of Bowbeck DAC

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Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

Appendix II

Planning policies/ objectives relating to the protection of European sites and water quality

1 Introduction

- 1 This report, which contains information required for the competent authority (in this instance An Bord Pleanála) to undertake a Stage One Screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on, and assesses the potential for, the proposed development to impact on the Natura 2000 network (hereafter referred to as European sites)¹. The proposed development consists of a residential element of 482 no. apartments along with associated residents amenities and support facilities, a neighbourhood shop, and public, communal and private open spaces, at Golf Lane, Carrickmines, Co. Dublin.
- 2 Screening for Appropriate Assessment is required pursuant to Article 6(3) of Directive 92/43/EEC (the Habitats Directive) and Part XAB of the Planning and Development Act 2000, as amended (“the 2000 Act”). Where it cannot be excluded that a project or plan, either alone or in combination with other projects or plans, would have a significant effect on a European Site then same shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives. The Golf Lane SHD is not directly connected with, or necessary for, the management of any European Site and, consequently, the project is subject to the Appropriate Assessment Screening process.
- 3 A Stage Two Appropriate Assessment is required if likely significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

For the reasons set out in detail in this AA Screening Report, an **Appropriate Assessment of the proposed development is not required in this instance** as it can be concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, will not have a significant effect on any European sites.

2 Methodology

2.1 Guidance

- 4 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:
 - *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

¹ The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

- *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),
- EC (2013) *Interpretation Manual of European Union Habitats*. Version EUR 28. European Commission and
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019).

2.2 Assessment Methodology

- 5 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine whether a Stage Two Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).
- 6 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).
- 7 Screening for Appropriate Assessment involves the following steps:



Assessing whether or not it can be excluded that a project or plan, either alone or in combination with other projects or plans, would have a significant effect on a European site, in view of the site's conservation objectives



Determination as to whether a Stage Two Appropriate Assessment is required

- 8 As referenced above, if the conclusion at the end of screening is that it cannot be excluded that a project or plan, either alone or in combination with other projects or plans, would have a significant effect on a European Site, then the project shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives. If, however, the determination made by the competent authority at the screening stage is that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.
- 9 In establishing which (if any) European sites are potentially at risk from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)²), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur. It should be emphasised that, in considering whether any European sites are potentially at risk from the project, no consideration has been given to any mitigation measures.
- 10 The identification of source-pathway-receptor connection(s) between the proposed development and European sites is, essentially, the process of identifying which European sites are within the Zone of Influence (Zoi) of the proposed development and, therefore, potentially at risk of significant effects. The Zoi is the area within which the proposed development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives³.
- 11 However, the identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs/SCIs). Where uncertainty exists, the precautionary principle⁴ is applied.

² The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

³ As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018)

⁴ The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document *Communication from the Commission on the Precautionary Principle* (European Commission, 2000) notes that the precautionary principle “covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are

2.3 Desktop Data Review

12 The desktop data sources used to inform the assessment presented in this report are as follows (accessed on the 29th October 2020):

- Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie, including conservation objectives documents
- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie
- Information on the location, nature and design of the proposed development supplied by the applicant's design team
- *Dún-Laoghaire – Rathdown County Development Plan 2016-2022* (Dun-Laoghaire – Rathdown County Council, 2016)
- *Ballyogan & Environs Local Area Plan 2019-2025* (Dun-Laoghaire – Rathdown County Council, 2019)
- *Treasuring our Wildlife- Dún- Laoghaire – Rathdown Biodiversity Plan 2009-2013* (Dun-Laoghaire – Rathdown County Council, 2009)
- *Hydrological & Hydrgeological Qualitative Risk Assessment for Lands at Glenamuck Road, Carrickmines – Proposed Mixed Development Glenamuck Road, Carrickmines, Co. Dublin* (AWN Consulting, 2020)
- *Ground Investigations Ireland: Glenamuck Road Environmental Assessment Report April 2020* (Ground Investigations Ireland, 2020)
- *Ground Investigations Ireland: Site at Glenamuck Road, Ground Investigation Report January to March 2020* (Ground Investigations Ireland, 2020)

2.4 Consultations

A consultation letter was issued to the Development Applications Unit (DAU) of the Department of Culture, Heritage and the Gaeltacht on the 21st May 2020. No response had been received at the time of finalising this report (early December 2020).

reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are possible and AA must be carried out.

2.5 Baseline Surveys

- 13 This section describes the ecological surveys carried out to inform the assessment of likely significant effects on European sites.

2.5.1 Habitats and Flora Survey

- 14 A habitat survey was undertaken of the proposed development site on the 26th February 2020 by Caroline Kelly, BSc. MSc., following the methodology described in *Best Practice Guidance for Habitat Survey and Mapping*⁵. A follow up visit was also carried out by Síofra Quigley, BSc., MSc. on the 21st September 2020, to cover additional areas not previously surveyed. All habitat types were classified using the *Guide to Habitats in Ireland*⁶, recording the indicator species and abundance using the DAFOR scale⁷ and recording any species of conservation interest.

2.5.2 Survey Limitations

Habitat surveys were conducted in February 2020, which lies outside of the optimal survey period for most higher plant species. A follow up site visit, to cover additional areas not previously surveyed, was conducted in September 2020, also outside the optimal survey period. However, given the limited ecological value of the habitats identified on site, which are typical of the suburban environment, this is not deemed to be a limitation, in that it has not inhibited the habitat classification, and does not affect the assessment and its conclusions.

The banks of the Golf Stream, which runs along the northern boundary of the proposed development site, were densely vegetated, often with impenetrable bramble and gorse scrub, which made access during surveys quite restrictive. With regards to otters, there is suitable habitat within the site, in the form of the Golf Stream, to support populations of otters. It should be noted that the Golf Stream is highly modified in this location, with multiple concrete weirs and a sluice, which would make it less suitable to support otter holts. However, given the hydrological separation between the proposed development site and Wicklow Mountains SAC (for which otter is a qualifying interest), any otter utilising the watercourses at the proposed development site do not form part of, or provide any supporting role to, the SAC population.

Therefore, the overgrown nature of the banksides, and associated restricted access during surveys, are not seen as limitations and has not affected the impact assessment or its conclusions.

3 Provision of Information for Screening for Appropriate Assessment

- 15 The following sections provide information to facilitate the Appropriate Assessment screening of the proposed development to be undertaken by the competent authority.
- 16 A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are considered, where relevant to the assessment of ecological impacts by virtue of potential pathways for impacts associated with the proposed development to affect the receiving ecological environment (e.g. geological, hydrogeological and hydrological data).
- 17 The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed

⁵ Smith, G.F., O'Donoghue, P., O'Hara, K. & Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

⁶ Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

⁷ The DAFOR scale is an ordinal or semi-quantitative scale for recording the relative abundance of plant species. The name DAFOR is an acronym for the abundance levels recorded: Dominant, Abundant, Frequent, Occasional and Rare.

development will result in likely significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Development

As set out in the application documentation, the proposed development comprises a residential development of 482 no. units (all apartments), along with ancillary residential amenities, and provision of a childcare facility, gym, and local shop. The proposed residential units comprise 31 no. studio units, 183 no. 1-bedroom units, 229 no. 2-bedroom units, and 39 no. 3-bedroom units (including 2 no. duplex type units).

The proposed development is set out in 7 no. blocks which comprise the following:

- Block A1 comprises 62. no. apartments within a part four, part six storey building, including 10 no. studio units, 7 no. 1-bedroom units, 41 no. 2 bedroom units, and 4 no. 3-bedroom units. An ESB substation is provided at ground floor level.
- Block A2 comprises 85 no. apartments within a part four, part eight storey building, including 25 no. 1-bedroom units, 45 no. 2-bedroom units, and 15 no. 3-bedroom units.
- Block A3 comprises 79 no. apartments within a part four, part twelve storey building, including 21 no. studio units, 19 no. 1-bedroom units, 28 no. 2-bedroom units, and 11 no. 3-bedroom units.
- Block B0 comprises 150 no. apartments and resident's amenities within a part four, part eighteen, part twenty-one and part twenty-two storey building. The apartments include 76 no. 1-bedroom units, 68 no. 2-bedroom units, and 6 no. 3-bedroom units (including 2 no. duplex type units). An ESB substation, resident's concierge area (105 sq.m) and resident's amenity space (62 sq.m) are provided at ground floor level. A resident's amenity / event space is provided at the twentieth and twenty-first floor levels.
- Block B1 comprises 8 no. apartments and is four storeys in height, directly abutting Block B. The apartments include 4 no. 1-bedroom units, and 4 no. 2-bedroom units.
- Block C comprises 42 no. apartments and a local shop within a part five, part seven storey building. The apartments include 30 no. 1-bedroom units, 9 no. 2-bedroom units, and 3 no. 3-bedroom units. A local shop (154 sq.m) and an ESB substation are provided at ground floor level.
- Block D comprises 56 no. apartments, a commercial gym, resident's concierge area, resident's lounge, and a childcare facility in a part four, part seven storey building. The apartments include 22 no. 1-bedroom units, and 34 no. 2-bedroom units. The resident's concierge area (99 sq.m), resident's amenity space (292 sq.m), commercial gym (340 sq.m), and childcare facility (300 sq.m) units are located at ground floor level. The resident's lounge (292 sq.m) is located at first floor level.

Two basement levels are proposed, providing car parking spaces (299 no.), bin stores, plant rooms, bicycle parking (1,000 no. spaces), and circulation areas. A further 240 no. bicycle parking spaces are provided at ground level. The proposed development includes landscaping, boundary treatments, public, private and communal open space (including roof terraces), two cycle / pedestrian crossings over the stream at the western side of the site, along with a new pedestrian and cycle crossing of Glenamuck Road South at the west of the site, cycle and pedestrian facilities, play facilities, and lighting. The proposed buildings include the provision of private open space in the form of balconies and winter gardens to all elevations of the proposed buildings. The development also includes vehicular, pedestrian, and cycle accesses, drop off areas, boundary treatments, services, and all associated ancillary and site development works.

- 18 In relation to surface water, an extensive surface water network surrounds the proposed development site at present. A 225mm diameter UPVC surface water sewer runs to the north of the site. The existing surface water network located on Golf Lane runs north towards the M50, where it meets the surface water sewer from the proposed development site (225mm sewer running to the north of the site) and discharges to the

Carrickmines River culvert between the slipway and motorway. In addition, there is an extensive surface water network on Glenamuck Road. The surrounding area's surface water ultimately discharges into the Carrickmines River or its tributaries, as it lies within the Carrickmines_010 sub-basin.

- 19 In terms of existing foul water infrastructure, an existing 225mm diameter foul sewer lies under Golf Lane, due to the recent development on the south-eastern side of the road, draining north-east. Also, a 300mm diameter Irish Water foul sewer is located to the north of the subject site (parallel to the 225mm diameter surface water sewer mentioned in the previous paragraph), draining south-east. This sewer is believed to be of recent construction to create a mains water connection for one of the previous dwellings present on site.

The proposed management of surface water for the proposed development has been designed to comply with the policies and guidelines outlined in the Greater Dublin Strategic Drainage Study (GDSDS) and with the requirements of Dún Laoghaire – Rathdown County Council. The proposed surface water strategy incorporates attenuation of storm water to limit discharge from the site, although storage facilities and Sustainable Urban Drainage Systems (SUDS) elements will be designed to allow infiltration or reduction of run-off volumes and rates where possible. Run-off from the podium slab and green-roofs will be conveyed by a slung drainage system, within the basement extents, to the north of the site. The podiums will consist of green areas and raised planters, providing interception storage and treatment. Bioretention with under drains will be used, where possible, to convey run-off from the podium to gullies at the podium slab level. The hard-standing areas of the podium have been designed to drain to the filter drains, green areas and bioretention areas. 'Stormtech' systems have been introduced as an additional treatment stage and an additional SUDS feature which allows infiltration to ground.

- 20 The final surface water discharge point for the site will be to the Golf Stream. A flap valve will be constructed as part of the outfall to ensure flood water cannot enter the system. Flow controls will be constructed to restrict the surface water discharge to greenfield run-off rates, in accordance with the GDSDS and Local Authority Policy. The following SUDS measures have been incorporated into the proposed surface water strategy⁸:

- Bioswales, filter drains and rain gardens- included to provide attenuation, treatment and infiltration where possible;
- Attenuation storage - in the form of 2 no. attenuation storage tanks, using 'Stormtech' systems. Tank 1 is located on the north-western side of the proposed development site and accounts for 270m³ of the proposed storage, with a discharge rate of 1.6l/s controlled by a 'Hydrobrake Optimum' flow control device. Tank 2 is located on the northern side of the proposed development site and accounts for 510m³ of the proposed storage with a discharge rate of 2.3l/s controlled by a 'Hydrobrake Optimum' flow control device.
- Green roofs - (approximately 3665m²) on Blocks A-D. Green roof specifications include a minimum 100mm minimum construction depth and sedum planting.
- Green podium (with a soil depth of up to 300mm) with landscaped areas and raised planters (with a soil depth in excess of 750mm) to reduce run-off rates and total impermeable area.

⁸ SUDS measures are included in the design but not for the purposes of avoiding or reducing any potential harmful effects to any European sites. Rather, their inclusion is due to the fact that in the greater Dublin Area, SUDS are required for new developments under the objectives of the GDSDS and the relevant County Development Plans (see Appendix II for reference). For example, Policy E13 of the Dún- Laoghaire – Rathdown County Development Plan 2016-2022 states that "It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document".

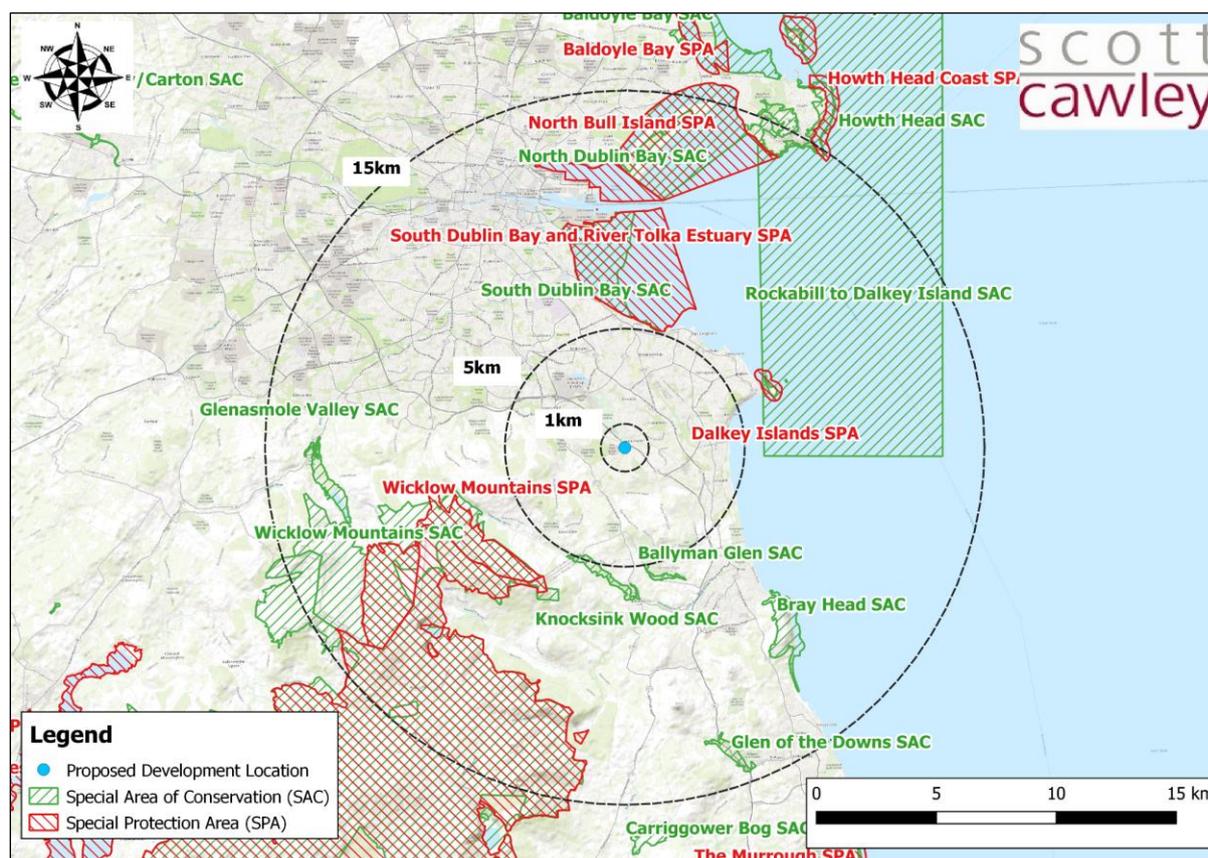
- Class 2 separator – all basement level drainage is discharged to the foul sewerage network via a Class 2 separator.
- 21 Whilst certain aspects of the development – such as SUDS – are referenced in the application documentation, absolutely no reliance has been placed on any such measure for the purposes of conducting AA Screening (even though those measures are not directed to the protection of any European site which might potentially be affected by the proposed development).”
- 22 The proposed foul drainage for the proposed development, is largely reliant on slung drainage in the basement. The foul waters generated on site will exit the basement at the two locations. From these locations, foul waters will gravitate to a single discharge point, to the north of the proposed development, to the 300mm Irish Water foul sewer. The predicted foul loadings to be generated from the proposed development is estimated at 1301 P.E. (Population Equivalent). During operation, the foul waters generated by the proposed development will be discharged to Shanganagh WWTP for treatment, prior to ultimate discharge into Killiney Bay.

3.2 Overview of the Receiving Environment

3.2.1 European sites

- 23 There are no European sites within the boundary of the proposed development. The nearest European site is Knocksink Woods SAC; 4.8km to the south-west. Other SACs in the vicinity of the proposed development site include Ballyman Glen SAC (c. 4.9km south), Wicklow Mountains cSAC (c. 6.4km south-west), Glenasmole Valley cSAC (c. 11.8km west), Bray Head SAC (c. 8.5km south-east), Glen of the Downs SAC (c. 12.6km south-east), Rockabill to Dalkey Island SAC (c. 5.8km east), South Dublin Bay SAC (c. 5.2km north-east), North Dublin Bay SAC (c. 10.9km north-east) and Howth Head cSAC (c. 14km north-east). SPA sites located in the vicinity of the proposed development site include Wicklow Mountains SPA (c. 6.4km south-west), Dalkey Islands SPA (c. 6.3km north-east), South Dublin Bay and River Tolka Estuary SPA (c. 5.2km north-east), North Bull Island SPA (c. 10.9km north-east) and Howth Head Coast SPA (c. 14.8km). There is an existing watercourse on site, the Golf Stream, which discharges to the Carrickmines Stream, a tributary of the Shanganagh River. The Shanganagh River discharges into the coastal waters of Killiney Bay, within which Rockabill to Dalkey Island SAC and Dalkey Island SPA are located.
- 24 All of the European sites present in the vicinity of the proposed development are shown on Figure 1 below. The QIs/SCIs of the European sites in the vicinity of the proposed development are provided in Appendix I, along with their relative distance to the proposed development site.

Figure 1 European sites in the vicinity of the proposed development site



3.2.2 Habitats

- 25 The proposed development site is brownfield in nature, comprised of disturbed ground, scrub, dry meadows and grassy verges, treelines and hedgerows. There are no existing buildings on site, with previous residential dwellings having been demolished in recent years. The surrounding environment is suburban-rural in nature, with a number of residential developments in the immediate surroundings of the proposed development site, and agricultural lands in the wider vicinity. The M50 motorway lies to the north of the proposed development site and “The Park Carrickmines” retail park lies to the northwest. The Golf Stream runs along the northern and western boundary of the proposed development site, and creates a link between the site and Killiney Bay via the Carrickmines Stream and Shanganagh River.

3.2.3 Flora and Fauna Species

The desktop study confirmed that there are no records of any species or habitats for which European sites are designated within the proposed development site. The desktop study returned records of the following species for which European sites illustrated in Figure 1, and listed in Appendix 1, are designated, within c. 2km of the proposed development site⁹:

- Black-headed Gull *Croicocephalus ridibundus*
- Otter *Lutra lutra*

⁹ This excludes records with a resolution >1km.

Records for Black-headed Gull exist at Cabinteely Park, c. 1.5km to the north-east of the proposed development site. Black-headed Gulls predominately use areas of amenity grassland for foraging purposes, when foraging inland, away from the coast. The proposed development site does not contain any suitable grassland habitat to support this species, and the overgrown and disturbed nature of the proposed development site is therefore not considered suitable to support significant populations of this species.

The nearest record for Otter is from the Carrickmines Stream, c. 375m to the north-east of the proposed development site. This record dates back to 1980. Furthermore, previous work by Scott Cawley Ltd. for the Cherrywood Planning Scheme Biodiversity Plan, recorded evidence of Otter along the Carrickmines' River valley and Brides Glen, watercourses which occur in the same catchment as the proposed development site. The Golf Lane Stream, located along the northern boundary of the proposed development site, was not deemed suitable to contain Otter holts due to its modified nature, however, upstream and downstream sections of this watercourse may contain Otter holts if banksides are less modified. With regards to the potential for otter holts to be present along the banks of this watercourse, the fact that the watercourse is highly modified at this location, with multiple concrete weirs and a sluice, means that otter holts are very unlikely to occur on the development site. According to the EPA's Online Map Viewer¹⁰, the proposed development site and the Wicklow Mountains SAC are not hydrologically connected. The proposed development site is contained within a separate sub-basin (Carrickmines Stream_010 sub-basin) to the Wicklow Mountains SAC (Glencullen_010 sub-basin). Considering this separation, and the distance between the SAC and the proposed development site (c. 6.4km), Otters associated with the Golf Stream which runs along the northern boundary of the proposed development site, do not form part of, or provide any supporting role to, the SAC population.

Apart from Otter, there are no records for species listed on Annex II of the Habitats Directive, within 2km of the proposed development site.

Two invasive plant species, listed on Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations, 2011*, are known to occur within 2km of the proposed development site; Giant Hogweed *Heracleum mantegazzianum* and Japanese Knotweed *Reynoutria japonica*. A survey of the proposed development site was conducted by Scott Cawley in February 2020, as well as a follow-up site visit in September 2020, and there were no invasive species, as listed on the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations, 2011*, observed on the development site.

3.2.4 Hydrology

According to the EPA's online Map Viewer, the proposed development site is situated within the Ovoca-Varty catchment and the Dargle sub-catchment. The Golf Stream runs along the northern boundary of the proposed development site. The Glenamuck North River runs parallel to the Golf Stream, approximately 50m to the north of the Golf Stream. Both watercourses discharge into the Carrickmines Stream on the east side of the M50 motorway. The Carrickmines Stream is a tributary of the Shanganagh River and discharges into the Shanganagh River c. 3.3km downstream of the proposed development site. The Shanganagh River then flows in an easterly direction for c. 1.8km before discharging into the coastal waters of Killiney Bay, within which Rockabill to Dalkey Island SAC and Dalkey Island SPA are located.

According to the EPA's online Map Viewer, there is no data available regarding the surface water quality of the Golf Stream or Glenamuck North River. The Carrickmines Stream is deemed to be of "Poor (Q3)" quality, based on data recorded at the EPA's designated monitoring station "Glenamuck Road Bridge (Friarsland/ Priorsland)", c. 430 downstream of the proposed development site. At its confluence with the Shanganagh River, "(Bridge at Loughlinstown)", the Carrickmines Stream continues to be of "Poor (Q3)" quality. The Shanganagh River is of "Moderate (Q3-4)" quality at "Commons Road", just west of Shanganagh Road (R119), however, the water quality decreases to "Poor (Q3)" at Shanganagh Waste Water

¹⁰ EPA Online Map Viewer. Available at: <https://gis.epa.ie/EPAMaps/> [Accessed 29/10/2020]

Treatment Plant, before it discharges into Killiney Bay. The coastal waters of Killiney Bay are deemed to be “Unpolluted”.

In terms of Water Framework Directive (WFD) status, the Carrickmines Stream is deemed to be “at risk” of failing to meet its WFD objectives. Both the Shanganagh River and coastal waters of Killiney Bay are “not at risk”. Both the Carrickmines Stream and Shanganagh River are of “moderate” WFD status. The coastal waters of Killiney Bay are of “High” WFD status.

3.2.5 Hydrogeology

According to the EPA’s online Map Viewer, the proposed development site lies above the “Wicklow” groundwater body, which is described as “poorly productive bedrock”. It has “good” groundwater status, with regards the WFD, and its level of risk of not achieving good status under the WFD is currently under “review”. Geological Survey of Ireland (GSI) data indicates that the Wicklow groundwater body is a “poor aquifer- bedrock which is generally unproductive except for local zones”. The vulnerability rating for the groundwater beneath the site is “E – Extreme vulnerability” of potential contaminants passing through the bedrock and into the groundwater.

The majority of groundwater flow in this aquifer occurs in the upper 3m of the rocks. Flow is lateral, towards discharge points such rivers and streams. Typical groundwater flow paths are approximately a couple of hundred metres, with discharge occurring to the closest surface water feature.¹¹

Geological Survey of Ireland (GSI) data indicates that the bedrock is from the “Northern and Upper Liffey Valley Plutons” formation, composed of “granite with muscovite phenocrysts”.

3.2.6 Soils & Geology

Ground investigations were carried out at the proposed development site by Ground Investigations Ireland between January and March 2020. The results of this assessment revealed that material on site can be classified as non-hazardous, with no significant quantities of contaminants present¹² (Ground Investigations Ireland, 2020).

3.3 Assessment of Potential Effects on European Sites

- 26 This section identifies all the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a significant effect on any European site, either alone or in combination with other plans or projects.
- 27 In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account. As previously stated, whilst certain aspects of the development – such as SUDS – are referenced in the application documentation, absolutely no reliance has been placed on any such measure for the purposes of conducting AA Screening (even though those measures are not directed to the protection of any European site which might potentially be affected by the proposed development).

¹¹ According to information available from geological Surveys Ireland (GSI): https://secure.dcaae.gov.ie/GSI_DOWNLOAD/Groundwater/Reports/GWB/WicklowGWB.pdf [Accessed 21/05/2020]

¹² Trace levels of asbestos were detected in sample TP-02 at 0.5m. Levels detected were less than the laboratory limit of <0.001%

3.3.1 *Habitat loss and fragmentation*

The proposed development does not overlap with the boundary of any European site. Therefore, there are no European sites at risk of direct habitat loss impacts.

As the proposed development does not traverse any European sites there is no potential for habitat fragmentation to occur within any European site.

The proposed development site does not support populations of any fauna species linked with the QI/SCI populations of any European site(s) for the reasons outlined in Section 3.2.3. In particular, with regards to Otter, the section of the Golf Stream which runs along the northern boundary of the proposed development site is not considered suitable to contain Otter holts, given its highly modified nature. In addition, the fact that the proposed development site and Wicklow Mountains SAC, a European site in the vicinity of the proposed development site for which Otter are a qualifying interest species, lie within separate sub-basins and are not hydrologically connected via watercourses, means that any Otters which may frequent the proposed development site, do not form part of, nor support, the Wicklow Mountains SAC population of Otter. Therefore, likely significant effects on Otter associated with Wicklow Mountains SAC can be excluded.

As the proposed development will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

3.3.2 *Habitat degradation as a result of hydrological impacts*

With regards potential hydrological impacts that may arise during the construction phase of the proposed development, the following potential impacts could affect the hydrology of the area:

- Excavation of soil and sub-soil layers for a large area of the proposed development, the removal of the overburden and the replacement with a large impermeable basement and other hard standing areas will reduce the ability of the lands to recharge groundwater. Most of surface water runoff will therefore be collected and positively discharged from the development to the Golf Stream.
- Surface water runoff from the construction phase may also contain increased silt levels or result in pollution from the construction processes. The discharge of these contaminants, such as concrete and cement, which are alkaline and corrosive, to the Golf Stream and or Carrickmines River has the potential to cause pollution. Accidental oil or fuel spillages or leaks from construction activities also have the potential to find their way into the adjacent water courses. Both increased silt and contaminant levels have the risk of reducing water quality in the adjoining water courses.
- Heavy rainfall or a high level of ground water could produce ponding in open trenches. Discharge of this rainwater pumped from excavations to existing streams could compromise the capacity of the stream and as such cause flooding.
- Discharge of wash water from concrete trucks and discharge of vehicle wheel wash water will contaminate the groundwater.
- Construction of the development may result in increasing silt levels in the water body and impacting on fisheries and riparian ecology which would be a short-term negative impact. The Environmental Report of the Dún Laoghaire-Rathdown County Development Plan 2016-2022 SEA states that "The Carrickmines (Glenamuck) / Shanganagh system is a regionally important salmonid system. The Carrickmines system supports a resident population of Brown Trout and a migratory population of Sea trout."

28 In addition, the following potential impacts could affect the hydrology of the area, during operation:

- Increased impermeable surface area will reduce local groundwater recharge and potentially increase surface water runoff and flooding downstream.

- Accidental hydrocarbon leaks and subsequent discharge into the piped surface water drainage network (e.g. along roads and in driveway areas).
- Contamination risks arising from development use / leaking pipes / contaminated surface water runoff.
- Restoration of the overland flow path from the Golf Stream to the M50 will alleviate any flooding of the Golf Stream upstream of the culvert passing underneath the M50.

Surface water run-off and discharges from the proposed development will drain to the Golf Stream in the north of the site. The Golf Stream is a tributary of the Carrickmines River, which in turn discharges to the Shanganagh River. The Shanganagh River discharges into Killiney Bay. Foul waters from the proposed development will be discharged to Shanganagh WWTP for treatment, via the existing foul water drainage network, prior to discharge into Killiney Bay. Therefore, the Zone of Influence (ZOI) of potential effects on water quality from the proposed development could extend to Killiney Bay, which lies c. 5.3km downstream of the proposed development site or c. 4.3km east as the crow flies.

Surface Water

Surface water run-off and discharges from the proposed development will enter the downstream receiving environment via the proposed surface water drainage network, which ultimately discharges into the Golf Stream.

Considering the following, the proposed development will not have any appreciable effects on water quality in Killiney Bay:

- The scale and location of the proposed development relative to the receiving surface water network;
- According to the Conceptual Site Model and resultant report prepared by AWN Consulting Ltd., if, during construction, any silt-laden stormwater managed to enter the public stormwater sewer in the absence of any mitigation, the suspended solids will naturally settle within the surface water drainage system or naturally settle within 500m of the proposed development site (AWN Consulting, 2020). Killiney Bay, and the European sites contained therein, lies c. 4.4km away. Therefore, habitat degradation as a result of hydrological impacts associated with the release of silt-laden discharges during construction can be excluded for habitats present in European sites in Killiney Bay;
- In the event of a worst case pollution incident occurring during the construction of the proposed development (e.g. 500 litre hydrocarbon spill), in the absence of mitigation measures, any contaminated run-off will have attenuated and diluted well within 1km of the proposed development site. Therefore, there is no potential for a construction related pollution event to affect European sites in Killiney Bay (AWN Consulting, 2020);
- In the event of a hydrocarbon leak from the basement car-park or proposed ESB substations during operation, which, adopting a worst case scenario, would involve the leakage of 100 litres in the absence of mitigation measures, there is no risk of a temporary impact to the hydrological environment due to the low chemical loading at the proposed development site and the distance between it and European sites, which allows for adequate attenuation and dilution. Potential contaminant loading would be attenuated, diluted and dispersed near the source area. Therefore, there is no potential for an operational related pollution event to affect European sites in Killiney Bay (AWN Consulting, 2020);
- The relatively low volume of any surface water run-off or discharge events from the proposed development site relative to the receiving surface water and marine environments; and;
- The level of mixing, dilution and dispersion of any surface water run-off/discharges from the proposed development site in the receiving watercourses of Killiney Bay.

It is an objective of the Greater Dublin Strategic Drainage Study, and the Dún- Laoghaire - Rathdown County Development Plan 2016-2022, to incorporate Sustainable Urban Drainage Systems (SUDS) within new developments. Whilst, the SUDS features associated with the proposed development are referenced in the application documentation, absolutely no reliance has been placed on these measures for the purposes of conducting AA Screening (even though those measures are not directed to the protection of any European site which might potentially be affected by the proposed development).”

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Killiney Bay as a result of surface water run-off or discharges.

Foul Water

Foul waters generated by the proposed development during operation will be discharged to Shanganagh WasteWater Treatment Plant (WWTP) for treatment, prior to ultimate discharge into Killiney Bay. The coastal waters of Killiney Bay are currently of “unpolluted” status, according to the EPA’s online Map Viewer. The predicted foul loadings to be generated from the proposed development is estimated at 1301 P.E. (Population Equivalent). Shanganagh WWTP operates under a discharge licence from the EPA (D0038-01) and must comply with the licence conditions.

The most recent available Annual Environmental Report (AER)¹³ (2018) for Shanganagh WWTP states that the discharge from the WWTP does not have an observable impact on the water quality of the receiving waters and the WWTP is operating in compliance with the Emission Limit Values (ELV’s) set in the WWTP discharge licence. Shanganagh WWTP has a design capacity of 186,000 P.E., and in 2018 had a peak operational loading of 126,035. This means that the WWTP, as of 2018, had a remaining capacity of 59,965 P.E. The predicated foul loadings generated by the proposed development is estimated at 1301 P.E. Considering the above, it can be concluded that Shanganagh WWTP has sufficient capacity to adequately process the quantities of foul waters predicted to be generated by the proposed development during operation, such that discharges will not result in any impact to the receiving waters of Killiney Bay or European sites contained therein.

Furthermore, the Conceptual Site Model and resultant report prepared by AWN Consulting Ltd., notes that even without treatment at Shanganagh WWTP, the peak effluent discharge calculated for the proposed development would equate to 0.62% of the licenced discharge (peak hydraulic capacity) at Shanganagh WWTP and would not impact on the overall water quality within Killiney Bay and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive) (AWN Consulting, 2020).

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Killiney Bay as a result of foul water discharges.

In Combination

There is potential for “*in-combination*” effects on water quality in Killiney Bay from any other projects carried out within the functional areas of the *Dublin City Development Plan 2016-2022* (Dublin City Council, 2016), the *Dún Laoghaire-Rathdown County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016), the *Fingal Development Plan 2017-2023* (Fingal County Council, 2017), *South Dublin County Council Development Plan 2016-2022* (South Dublin County Council, 2016), or any other land use plans which could influence conditions in Killiney Bay via rivers and other surface water features.

¹³ 2018 Annual Environmental Report for Shanganagh WWTP (DN0038-01). Available at: https://www.water.ie/docs/aers/2018/Non%20Priority%20AERS/D0038-01_2018_AER%20NOD.pdf [Accessed 22/10/2020]

The Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031¹⁴ (Eastern & Midland Regional Assembly, 2019) includes a range of policy objectives relevant to the protection of European sites and the protection of water quality in Killiney Bay, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans (included in Appendix II).

The planning authority for the proposed development is Dún-Laoghaire – Rathdown County Council. Plans and developments within Dún-Laoghaire – Rathdown County must comply with the following policy objectives of the Dún-Laoghaire – Rathdown County Development Plan 2016 – 2022 relevant to the protection of European sites and the protection of water quality in Killiney Bay:

- LHB19: It is Council policy to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas, candidate Special Areas of Conservation, proposed Natural Heritage Areas and Ramsar sites - as well as non-designated areas of high nature conservation value which serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.
- LHB20: It is Council policy to ensure the protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.
- LHB22: It is Council policy to protect and preserve areas designated as proposed Natural Heritage Areas, candidate Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.
- EI2: It is Council policy to provide adequate wastewater treatment facilities to serve the existing and future population of the County, subject to complying with the Water Framework Directive and the associated River Basin Management Plan or any updated version of this document, 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document, Pollution Reduction Programmes for Designated Shellfish Areas, the Urban Waste Water Treatment Directive and the Habitats Directive.
- EI3: It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document.

Plans and developments within the other local authority areas which could influence conditions in Killiney Bay via rivers and other surface water features, also must comply with the policies and objectives relevant to the protection of European sites and water quality. These include the *Dublin City Development Plan 2016-2022*, the *Fingal Development Plan 2017-2023*, the *South Dublin County Council Development Plan 2016-2022* and the *Wicklow County Development Plan 2016-2022* (Wicklow County Council, 2016). The relevant policies and objectives in those plans for the protection of European sites and water quality are included in Appendix II.

As noted under the surface water and foul water sections above, Killiney Bay is currently unpolluted and the proposed development will not result in any measurable effect on water quality in Killiney Bay. There are also protective policies and objectives in place at a strategic planning level to protect water quality in Killiney Bay.

The Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031¹⁴ (Eastern & Midland Regional Assembly, 2019) was subject to an Appropriate Assessment which concluded that upon

¹⁴ Eastern & Midland Regional Assembly (2019) *Regional Spatial & Economic Strategy 2019-2031*

implementation of the mitigation prescribed the Plan would not give rise to any adverse effects on the integrity of any European sites. Likewise, the County Development Plans listed above have also all been subject to an Appropriate Assessment which also concluded that they would not result in any adverse effects on the integrity of European sites, provided the mitigation included in the Plan was implemented in full. Finally, the Appropriate Assessment Screening Reports prepared for the *Ballyogan and Environs LAP 2019-2025*, concluded that the Plan would not give rise to any effect on the ecological integrity of any European sites, alone or in combination with any other plans, programmes, and projects etc.

Therefore, and having regard to the policies and objectives referred to under the relevant development plans, it is concluded that the possibility of any other plans or projects acting in combination with the proposed development to give rise to significant effects on any European site in, or associated with, Killiney Bay can be excluded.

3.3.3 *Habitat degradation as a result of hydrogeological impacts*

The proposed development lies within the Wicklow Groundwater Body (Dublin GWB). The only European sites within the Wicklow GWB that are designated for groundwater dependant habitats and/or species are Knocksink Woods SAC and Wicklow Mountains SAC. Two of the qualifying interests of Knocksink Woods SAC, the priority Annex I habitat Petrifying springs and Alluvial Woodland, are dependent upon the existing condition and functioning of the groundwater regime. In addition, the two lake habitats, which are qualifying interest habitats associated with Wicklow Mountains SAC, (e.g. Acid oligotrophic lakes; and ; Oligotrophic isoetid lake habitat), could potentially be impacted by activities which could result in pollution to the underlying ground water body. Based on information published by Geological Survey Ireland (GSI) on the Wicklow GWB, 'the majority of groundwater flow in this aquifer occurs in the upper 3m of the rocks. Flow is lateral, towards discharge points such as rivers and streams. Typical groundwater flow paths are approximately a couple of hundred metres, with discharge occurring to the closest surface water feature'.¹⁵ The proposed development site lies a significant distance down gradient of both the Wicklow Mountains SAC (c. 6.4km to the south-west) and Knocksink Woods SAC (c. 4.7km to the south-west) and therefore, it cannot influence groundwater conditions in these European sites. Furthermore, given the information relating to the general groundwater flow as outlined above, groundwaters in the vicinity of the site are likely to discharge to the nearby watercourses, thereby avoiding any potential impacts on these SACs.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other plans or projects, as a result of hydrogeological effects.

3.3.4 *Habitat degradation as a result of introducing/spreading non-native invasive species*

There are no invasive species, listed on the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations, 2011*, in the proposed development site, during the habitat survey carried out in February 2020 and confirmed in the site walkover in September 2020. The proposed development site is brownfield in nature, comprised of disturbed ground, scrub, dry meadows and grassy verges, treelines and hedgerows. It does not support any non-native invasive species which could be accidentally spread or introduced to habitats within European sites. Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other plans or projects, as a result of the introduction/ spread of non-native invasive species.

¹⁵ According to information available from geological Surveys Ireland (GSI): https://secure.dcaae.gov.ie/GSI_DOWNLOAD/Groundwater/Reports/GWB/WicklowGWB.pdf [Accessed 21/05/2020]

3.3.5 Disturbance and displacement impacts

Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m¹⁶. For waterbirds, disturbance effects would not be expected to extend beyond a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance.¹⁷ Regarding the raptor species, for which Wicklow Mountains SPA are designated (e.g. Merlin and Peregrine), a study by Ruddock & Whitfield¹⁸, which included a review of previous studies in this area, offers no definitive distance after which disturbance to Merlin is not significant but indicates that an upper limit of 300-500m may be sufficient in the case of breeding or nesting Merlin. Likewise a distance of 500-750m is likely to be sufficient for breeding Peregrines. Adopting a precautionary approach, based on the data regarding disturbance distances for Merlin and Peregrine, it can be concluded that disturbance to these bird species would be most likely to occur within 1km (i.e. the disturbance Zol is 1km). There are no European sites within the disturbance Zol; the next nearest European site to the proposed development is 4.8km away. There are also no habitat areas within the disturbance Zol of the proposed development that are known to support populations of qualifying/special conservation interest species of any SPA.¹⁹ The proposed development site itself is not considered suitable to support *ex-situ* SCI bird species due to an absence of suitable habitat (e.g. an absence of wetland habitat or large areas of amenity grassland). With regards to otters, there is suitable habitat within the site, in the form of the Golf Stream, to support populations of otters. However, as outlined in Section 3.2.3, given the separation between the proposed development site and Wicklow Mountains SAC (for which otter is a qualifying interest), any otter utilising the watercourses at the proposed development site do not form part of, or provide any supporting role to, the SAC population.

As the proposed development will not result in the disturbance/displacement of the qualifying/special conservation interest species of any European site, there is no potential for any in combination effects to occur in that regard.

¹⁶ This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual Zol of construction related disturbance likely to be much less in reality.

¹⁷ The disturbance zone of influence for waterbirds is based on the relationship between the noise levels generated by general construction traffic/works (BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise) and the proximity of those noise levels to birds – as assessed in Cutts, N. Phelps, A. & Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance*, and Wright, M., Goodman, P & Cameron, T. (2010) Exploring Behavioural Responses of Shorebirds to Impulsive Noise. *Wildfowl* (2010) 60: 150–167. At 300m, noise levels are below 60dB or, in most cases, are approaching the 50dB threshold below which no disturbance or displacement effects would arise.

¹⁸ Ruddock, M. & Whitfield, D.P. (2007). *A Review of Disturbance Distances in Selected Bird Species*. A report from Natural Research (Projects) Ltd. to Scottish Natural Heritage. Available at: <https://www.nature.scot/sites/default/files/2018-05/A%20Review%20of%20Disturbance%20Distances%20in%20Selected%20Bird%20Species%20-%20Natural%20Research%20Ltd%20-%202007.pdf> [Accessed 10/09/2020]

¹⁹ There is a need to consider use of habitat areas outside of an SPA by SCI bird species where they support the SCI populations and the site's conservation objectives. These habitat areas can comprise alternative roosting sites, foraging areas, staging grounds or migration routes and can, but not necessarily exclusively, be situated within the immediate hinterland of the SPA, or in areas ecologically connected to it.

3.3.6 Summary

- 29 The potential impacts associated with the proposed development do not have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of any European sites. Therefore, the proposed development is not likely to have significant effects on any European sites.
- 30 As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, and taking into account the policies and objectives of the statutory plans referred to above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites.
- 31 The potential impacts of the proposed development on the receiving environment, their Zol, and the European sites at risk of significant effects are summarised in
- 32
- 33 Table 1 below. In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

Table 1 Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the proposed development?
Habitat loss Habitat loss will be confined to the lands within the proposed development boundary.	No There are no European sites within the proposed development boundary and the proposed development site does not support populations of the qualifying interest or special conservation interest species of any European sites
Habitat degradation as a result of hydrological impacts Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	No There are no European sites at risk of hydrological effects associated with the proposed development
Habitat degradation as a result of hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.	No There are no European sites at risk of hydrogeological effects associated with the proposed development
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the proposed development site.	No There are no non-native invasive species present on the proposed development site and, therefore, no risk associated with the proposed development to any European sites from the spread/introduction of non-native invasive species
Disturbance and displacement impacts Potentially up to several hundred metres from the proposed development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the proposed development, taking into	No There are no European sites within the potential zone of influence of disturbance effects associated with the construction or

Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the proposed development?
account the sensitivity of the qualifying interest species to disturbance effects	operation of the proposed development and no potential for ex-situ impacts

4 Conclusions of Screening Assessment Process

- 34 Following an examination, analysis and evaluation of the best available information, and applying the precautionary principle in the absence of considering any mitigation measures, it can be concluded that the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded, for the reasons set out in Section 3.3 above. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.
- 35 Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development does not require an Appropriate Assessment or the preparation of a Natura Impact Statement (NIS).

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Special Area of Conservation (SAC)	
<p>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 <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)*</p> <p>NPWS (2020) <i>Conservation objectives for Knocksink Wood SAC [000725]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 4.7km to the south-west of the proposed development site</p>
<p>Ballyman Glen SAC [000713] [7220] Petrifying springs with tufa formation (Cratoneurion)* [7230] Alkaline fens</p> <p>NPWS (2019) <i>Conservation Objectives: Ballyman Glen SAC 000713</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 4.9km to the south of the proposed development site</p>
<p>Rockabill to Dalkey Island SAC [003000] [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocaena</i></p> <p>NPWS (2013) <i>Conservation Objectives: Rockabill to Dalkey Island SAC 003000</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 5.8km to the east of the proposed development site</p>
<p>Wicklow Mountains cSAC [002122] [3110] Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3160] Natural dystrophic lakes and ponds [4010] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4030] European dry heaths [4060] Alpine and Boreal heaths [6130] <i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i> [6230] Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [7130] Blanket bogs (* if active bog) [8110] Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8210] Calcareous rocky slopes with chasmophytic vegetation [8220] Siliceous rocky slopes with chasmophytic vegetation [91A0] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [1355] <i>Lutra lutra</i> (Otter)</p>	<p>Located c. 6.4km to the south-west of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>NPWS (2017) <i>Conservation Objectives: Wicklow Mountains SAC 002122</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	
<p>South Dublin Bay SAC [000210] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] <i>Salicornia</i> and other annuals colonising mud and sand [2110] Embryonic shifting dunes</p> <p>NPWS (2013) <i>Conservation Objectives: South Dublin Bay SAC 000210</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 5.2km to the north-east of the proposed development site</p>
<p>North Dublin Bay SAC [000206] [1140] Mudflats and sandflats not covered by seawater at low tide [1210] Annual vegetation of drift lines [1310] <i>Salicornia</i> and other annuals colonising mud and sand [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1395] Petalwort <i>Petalophyllum ralfsii</i> [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [2110] Embryonic shifting dunes [2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2190] Humid dune slacks</p> <p>NPWS (2013) <i>Conservation Objectives: North Dublin Bay SAC 000206</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 10.9km to the north-east of the proposed development site</p>
<p>Glenasmole Valley cSAC [001209] [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [7220] Petrifying springs with tufa formation (<i>Cratoneurion</i>)</p> <p>NPWS (2020) <i>Conservation objectives for Glenasmole Valley SAC [001209]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 11.8km to the west of the proposed development site</p>
<p>Glen of the Downs SAC [000719] [91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles</p> <p>NPWS (2020) <i>Conservation objectives for Glen of the Downs SAC [000719]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 12.6km to the south-east of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>Bray Head SAC [000714] [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths</p> <p>NPWS (2017) <i>Conservation Objectives: Bray Head SAC 000714</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Located c. 8.5km to the south-east of the proposed development site</p>
<p>Howth Head cSAC [000202] [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths</p> <p>NPWS (2016) <i>Conservation Objectives: Howth Head SAC 000202</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Located c. 14km to the north-east of the proposed development site</p>
Special Protection Area (SPA)	
<p>Wicklow Mountains SPA [004040] [A098] Merlin <i>Falco columbarius</i> [A103] Peregrine <i>Falco peregrinus</i></p> <p>NPWS (2020) <i>Conservation objectives for Wicklow Mountains SPA [004040]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 6.4km to the south-west of the proposed development site</p>
<p>Dalkey Islands SPA [004172] [A192] Roseate Tern <i>Sterna dougallii</i> [A193] Common Tern <i>Sterna hirundo</i> [A194] Arctic Tern <i>Sterna paradisaea</i></p> <p>NPWS (2020) <i>Conservation objectives for Dalkey Islands SPA [004172]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 6.3km to the north-east of the proposed development site</p>
<p>South Dublin Bay and River Tolka Estuary SPA [004024] [A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A137] Ringed Plover <i>Charadrius hiaticula</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A143] Knot <i>Calidris canutus</i> [A144] Sanderling <i>Calidris alba</i> [A149] Dunlin <i>Calidris alpina</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A162] Redshank <i>Tringa totanus</i> [A179] Black-headed Gull <i>Croicocephalus ridibundus</i> [A192] Roseate Tern <i>Sterna dougallii</i> [A193] Common Tern <i>Sterna hirundo</i> [A194] Arctic Tern <i>Sterna paradisaea</i></p>	<p>Located c. 5.2km to the north-east of the proposed development site</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>[A999] Wetland and Waterbirds</p> <p>NPWS (2015) <i>Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>North Bull Island SPA [004006]</p> <p>[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i></p> <p>[A048] Shelduck <i>Tadorna tadorna</i></p> <p>[A052] Teal <i>Anas crecca</i></p> <p>[A054] Pintail <i>Anas acuta</i></p> <p>[A056] Shoveler <i>Anas clypeata</i></p> <p>[A130] Oystercatcher <i>Haematopus ostralegus</i></p> <p>[A140] Golden Plover <i>Pluvialis apricaria</i></p> <p>[A141] Grey Plover <i>Pluvialis squatarola</i></p> <p>[A143] Knot <i>Calidris canutus</i></p> <p>[A144] Sanderling <i>Calidris alba</i></p> <p>[A149] Dunlin <i>Calidris alpina</i></p> <p>[A156] Black-tailed Godwit <i>Limosa limosa</i></p> <p>[A157] Bar-tailed Godwit <i>Limosa lapponica</i></p> <p>[A160] Curlew <i>Numenius arquata</i></p> <p>[A162] Redshank <i>Tringa totanus</i></p> <p>[A169] Turnstone <i>Arenaria interpres</i></p> <p>[A179] Black-headed Gull <i>Croicocephalus ridibundus</i></p> <p>[A999] Wetlands & Waterbirds</p> <p>NPWS (2015) <i>Conservation Objectives: North Bull Island SPA 004006</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Located c. 10.9km to the north-east of the proposed development site</p>
<p>Howth Head Coast SPA [004113]</p> <p>[A188] Kittiwake <i>Rissa tridactyla</i></p> <p>NPWS (2020) <i>Conservation objectives for Howth Head Coast SPA [004113]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Located c. 14.8km to the north-east of the proposed development site</p>

Appendix II

Land use plan policies/objectives relating to the protection of European sites and water quality

Ballyogan and Environs Local Area Plan 2019-2025

Policy BELAP SI4: Water Framework Directive

To facilitate compliance with the requirements of the EU Water Framework Directive and any relevant legislation. In this regard, the Council will facilitate compliance with the relevant objectives and measures set out in the River Basin Management Plan 2018- 2021, or its successor, and associated Programme of Measures, where relevant.

Policy BELAP SI5: Surface Waters Regulations

To ensure the implementation of the surface water legislation Environmental Objectives (Surface Waters) Regulations 2009 to ensure that development permitted would not have an unacceptable impact on water quality including surface waters, ground water, river corridors, estuarine waters, bathing waters, coastal and transitional waters.

Policy BELAP SI7: SuDS

To ensure that Sustainable Drainage Systems (SuDS) is applied to any development in the BELAP area and that site specific solutions to surface water drainage systems are developed which meet the requirements of the Water Framework Directive and associated River Basin Management Plan. SuDS measures may include green roofs, permeable paving, detention basins, water butts, infiltration etc.

Policy BELAP SI9: Groundwater

To ensure the protection of groundwater resources within the BELAP boundary and associated habitats and species in accordance with the EU Groundwater Directive. All new planning applications within the BELAP boundary shall have regard to the likely impacts the proposed development may have on groundwater resources.

Dún Laoghaire-Rathdown County Development Plan 2016-2022

Policy LHB19: Protection of Natural Heritage and the Environment

It is Council policy to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas, candidate Special Areas of Conservation, proposed Natural Heritage Areas and Ramsar sites - as well as non-designated areas of high nature conservation value which serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.

Policy LHB20: Habitats Directive

It is Council policy to ensure the protection of natural heritage and biodiversity, including European sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

Policy LHB22: Designated Sites

It is Council policy to protect and preserve areas designated as proposed Natural Heritage Areas, candidate Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

Policy EI2: Wastewater Treatment and Appropriate Assessment

It is Council policy to provide adequate wastewater treatment facilities to serve the existing and future population of the County, subject to complying with the Water Framework Directive and the associated River Basin Management Plan or any updated version of this document, 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document, Pollution Reduction Programmes for Designated Shellfish Areas, the Urban Waste Water Treatment Directive and the Habitats Directive.

Policy EI3: Surface Water Drainage and Appropriate Assessment

It is Council policy to require that a Sustainable Drainage System (SuDS) is applied to any development and that site specific solutions to surface water drainage systems are developed, which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans and 'Water Quality in Ireland 2007-2009' (EPA 2011) or any updated version of the document.

Fingal Development Plan 2017-2023**Objective NH10**

Ensure that the Council takes full account of the requirements of the Habitats and Birds Directives, as they apply both within and without European Sites in the performance of its functions.

Objective NH11

Ensure that the Council, in the performance of its functions, takes full account of the objectives and management practices proposed in any management or related plans for European Sites in and adjacent to Fingal published by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Objective NH15

Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

Objective SW04

Require the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.

Objective WQ01

Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.

Objective WQ04

Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.

Objective WT01

Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy.

Objective WT02

Liaise with Irish Water to ensure the provision of wastewater treatment systems in order to ensure compliance with existing licences, EU Water Framework Directive, River Basin Management Plans, the Urban Waste Water Directive and the EU Habitats Directive.

South Dublin County Council Development Plan 2016-2022**HCL12 Objective 1**

To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.

HCL12 Objective 2

To ensure that projects that give rise to significant direct, indirect or secondary impacts on Natura 2000 sites, either individually or in combination with other plans or projects, will not be permitted unless the following is robustly demonstrated in accordance with Article 6(4) of the Habitats Directive and S.177AA of the Planning and Development Act (2000 – 2010) or any superseding legislation:

1. There are no less damaging alternative solutions available; and
2. There are imperative reasons of overriding public interest (as defined in the Habitats Directive) requiring the project to proceed; and
3. Adequate compensatory measures have been identified that can be put in place.

IE Policy 1 Water & Wastewater

It is the policy of the Council to work in conjunction with Irish Water to protect existing water and drainage infrastructure and to promote investment in the water and drainage network to support environmental protection and facilitate the sustainable growth of the County.

IE1 Objective 1

To work in conjunction with Irish Water to protect, manage and optimise water supply and foul drainage networks in the County.

IE1 Objective 2

To work in conjunction with Irish Water to facilitate the timely delivery of ongoing upgrades and the expansion of water supply and wastewater services to meet the future needs of the County and the Region.

IE Policy 2 Surface Water & Groundwater

It is the policy of the Council to manage surface water and to protect and enhance ground and surface water quality to meet the requirements of the EU Water Framework Directive.

IE2 Objective 1

To maintain, improve and enhance the environmental and ecological quality of our surface waters and groundwater by implementing the programme of measures set out in the Eastern River Basin District River Basin Management Plan.

IE2 Objective 3

To maintain and enhance existing surface water drainage systems in the County and promote and facilitate the development of Sustainable Urban Drainage Systems (SUDS), including integrated constructed wetlands, at a local, district and County level, to control surface water outfall and protect water quality.

IE2 Objective 4

To incorporate Sustainable Urban Drainage Systems (SUDS) as part of Local Area Plans, Planning Schemes, Framework Plans and Design Statements to address the potential for Sustainable Urban Drainage at a site and/or district scale, including the potential for wetland facilities.

IE2 Objective 5

To limit surface water run-off from new developments through the use of Sustainable Urban Drainage Systems (SUDS) and avoid the use of underground attenuation and storage tanks.

IE2 Objective 6

To promote and support the retrofitting of Sustainable Urban Drainage Systems (SUDS) in established urban areas, including integrated constructed wetlands.

Wicklow County Development Plan 2016-2022

NH2

No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites 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 be permitted on the basis of this plan (either individually or in combination with other plans or projects).

Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place.

NH3

To contribute, as appropriate, towards the protection of designated ecological sites including candidate Special Areas of Conservation (cSACs) 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 the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended)⁷, the Birds Directive (2009/147/EC)⁸, the Environmental Liability Directive (2004/35/EC)⁹, the Environmental Impact

Assessment Directive (85/337/EEC, as amended), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).

- National legislation, including the Wildlife Act 1976, the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011) and the European Communities (Environmental Liability) Regulations 2008.
- National policy guidelines (including any clarifying Circulars or superseding versions of same), including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010.
- Catchment and water resource management Plans, including Eastern and South Eastern River Basin Management Plan 2009-2015 (including any superseding versions of same).
- Biodiversity Plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's 2nd National Biodiversity Plan (including any superseding version of same).
- Ireland's Environment 2014 (EPA, 2014, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.

NH4

All projects and plans arising from this plan (including any associated improvement works or associated infrastructure) will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment where necessary, that:

- 1) The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or
- 2) The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type and / or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or
- 3) The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

NH5

To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Wicklow.

Along with cSACs, SPAs and pNHA these include Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).

WI2

To protect existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.

WI12

Ensure the implementation of Sustainable Urban Drainage Systems (SUDS) and in particular, to ensure that all surface water generated in a new development is disposed of on-site or is attenuated and treated prior to discharge to an approved surface water system.

WI6

In order to fulfil the objectives of the Core Strategy, Wicklow County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned for development are serviced by an adequate wastewater collection and treatment system and in particular, to endeavour to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the development of a WWTP in Arklow, at an optimal location following detailed technical and environmental assessment and public consultation.

WI7

Permission will be considered for private wastewater treatment plants for single rural houses where:

- the specific ground conditions have been shown to be suitable for the construction of a treatment plant and any associated percolation area;
- the system will not give rise to unacceptable adverse impacts on ground waters / aquifers and the type of treatment proposed has been drawn up in accordance with the appropriate groundwater protection response set out in the Wicklow Groundwater Protection Scheme (2003);
- the proposed method of treatment and disposal complies with Wicklow County Council's Policy for Wastewater Treatment & Disposal Systems for Single Houses ($PE \leq 10$) and the Environmental Protection Agency "Waste Water Treatment Manuals"; and
- in all cases the protection of ground and surface water quality shall remain the overriding priority and proposals must definitively demonstrate that the proposed development will not have an adverse impact on water quality standards and requirements set out in EU and national legislation and guidance documents.

WI9

Private wastewater treatment plants for commercial / employment generating development will only be considered where:

- Irish Water has confirmed the site is due to be connected to a future public system in the area or Irish Water have confirmed there are no plans for a public system in the area;
- it can clearly demonstrated that the proposed system can meet all EPA / Local Authority environmental criteria; and
- an annually renewed contract for the management and maintenance of the system is contracted with a reputable company / person, details of which shall be provided to the Local Authority.

Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031

Regional Policy Objective 3.4

Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.

Regional Policy Objective 7.2

To achieve and maintain 'Good Environmental Status' for marine waters and to ensure the sustainable use of shared marine resources in the Region, and to promote the development of a cross-boundary and cross-border strategic management and stakeholder engagement framework to protect the marine environment.

Regional Policy Objective 7.10

Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and local authority land use plans.

Regional Policy Objective 7.11

For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and areas 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.

Regional Policy Objective 7.12

Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SuDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.

Regional Policy Objective 7.15

Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

Regional Policy Objective 7.16

Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans.

Regional Policy Objective 7.22

Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks and protected species.

Regional Policy Objective 10.6

Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.

Regional Policy Objective 10.7

Local authority core strategies shall demonstrate compliance with DHPLG Water Services Guidelines for local authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

Regional Policy Objective 10.10

Support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Project Ireland 2040 and in increasing compliance with the requirements of the Urban Waste Water Treatment Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.

Regional Policy Objective 10.11

EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.²⁰

Regional Policy Objective 10.12

Development plans shall support strategic wastewater treatment infrastructure investment and provide for the separation of foul and surface water networks to accommodate the future growth of the Region.

Regional Policy Objective 10.15

²⁰ The Greater Dublin Drainage Project, the Ringsend Wastewater Treatment Plant Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme

Support the relevant local authorities (and Irish Water where relevant) in the Region to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and provision at a local level of Sustainable Urban Drainage solutions.

Regional Policy Objective 10.16

Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS), including SuDS.

Regional Policy Objective 10.18

Local authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans.