PROVISION OF INFORMATION FOR APPROPRIATE ASSESSMENT SCREENING

PROPOSED RESIDENTIAL DEVELOPMENT AT ROCKVILLE DRIVE

GLENAMUCK, CO. DUBLIN

PREPARED FOR DÚN LAOGHARIE RATHDOWN COUNTY COUNCIL

Project Reference	Rev.	Status	Author	Reviewed By	Approved By	Issue Date
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Scott Cawley, College House, Rock Road, Blackrock, Co. Dublin

Tel+353(1)676-9815 Fax +353(1) 676-9816

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1 Introduction

This report which contains information required for the competent authority (in this instance Dún Laoghaire-Rathdown County Council) to undertake a screening exercise for Appropriate Assessment (AA), was prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on and assesses the potential for the proposed development to significantly affect Natura 2000 sites (hereafter "*European sites*"[1]).

It is necessary that the proposed development has regard to Article 6 of the *Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (as amended) (hereafter "the Habitats Directive"). This is transposed in Ireland primarily by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) (as amended) (hereafter the Birds and Habitats Regulations) and the Planning and Development (Amendment) Act, 2010 (as amended).

An AA 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. In accordance with the legislation and national guidance, the competent authority issues an AA Screening Determination which will set out their decision and the reasons for it.

Following the preparation of this screening statement it was objectively concluded that there was no likelihood of any significant effects on any European sites arising from the proposed development, either alone or in combination with other plans or projects. Therefore, it is our view that an Appropriate Assessment is not required in this instance. The information in the tables below provides a summary of the information gathered for this screening exercise and the conclusions that were made.

2 Methodology

This report was prepared with regard to the following guidance documents, where 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;
- *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 Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive;
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (EC Environment Directorate-General, 2000); hereafter referred to as MN2000;
- *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest,*

[1] Natura 2000 sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II. 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 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 candidate Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007);

- *Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive.* Findings of an international workshop on Appropriate Assessment in Oxford, December 2009; and
- *Communication from the Commission on the precautionary principle.* European Commission (2000b).

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if Appropriate Assessment is required, documented screening is required. Screening identifies the likely effects on European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects. In addition, it further considers whether these effects are likely to adversely affect the integrity of any European sites.

If the conclusions at the end of screening are 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 would be no requirement to undertake Appropriate Assessment.

However, even if screening makes a finding of no significant effects, and therefore concludes that Appropriate Assessment is not required, these findings must be clearly documented in order to provide transparency of decision-making, and to ensure the application of the 'precautionary principle'[2].

Screening for Appropriate Assessment involves the following:

- Determining whether a project or plan is directly connected with or necessary to the conservation management of any European sites[3] (See Appendix A Figure 1 for a plan of European sites which lie within 15km of the study site);
- Describing the details of the project/plan proposals and other plans or projects that may cumulatively affect any European sites (see Table 1);
- Describing the characteristics of relevant European sites (Table 2); and
- Assessing the likelihood and significance of effects on relevant European sites (see Table 2).

The information that was collected to allow the competent authority to screen the proposed development was based on a desk study conducted on the 24th April 2018. Information relied upon included the following information sources, which included maps, ecological and water quality data:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie;
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie;
- Online data available from the National Biodiversity Data Centre mapping service (http://maps.biodiversityireland.ie/#/Map);
- Information on land-use zoning from the online mapping of the Department of the Environment, Community and Local Government http://www.myplan.ie/en/index.html;
- Information on water quality in the area available from www.epa.ie;
- Information on the national River Basin District from www.wfdireland.ie;
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie;

[2] One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Declaration. Principle #15 declaration notes:

"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

[3] In this instance the proposed development is not directly connected with or necessary to the conservation management of any European sites.

- Information on the location, nature and design of the proposed development supplied by the applicant's design team;
- Information on the status of EU protected habitats in Ireland (National Parks & Wildlife Service, 2013a and 2013b); and
- Information on the conservation status of birds in Ireland (Colhoun & Cummins, 2014).

The following planning and policy documents were relevant to the subject lands, in particular with regard to the assessment of other plans and projects with potential for cumulative effects:

- *National Biodiversity Action Plan 2017 – 2021* (Department of Arts, Heritage and the Gaeltacht, 2017);
- *County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016); and,
- *Kiltiernan Glenamuck Local Area Plan 2013* (Dún Laoghaire-Rathdown County Council, 2013)

Table 1 Overview of the Proposed Development and its Receiving Environment	
Site Description	The proposed development site is located on Rockville Drive off the Glenamuck Road in Kiltiernan Co. Dublin (centred on Irish Grid Reference: O21414 23058). The site itself is comprised of grassland, scrub and hedgerows, while the site's immediate environs are comprised of residential properties with associated gardens, improved agricultural fields, hedgerows and treelines. The M50 Motorway is located *c.* 1.1km north-east of the proposed development site. According to *Dun Laoghaire and Rathdown County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016), the lands on which the proposed development site is located are zoned as "*Zone A to protect and/or improve residential amenity*", while surrounding lands adjacent to the proposed development site are zoned as "*Zone A to protect and/or improve residential amenity*", "*Zone B to protect and improve rural amenity and to provide for the development of agriculture*", "*Zone F to preserve and provide for open space with ancillary active recreational amenities*", "*Zone G to protect and improve high amenity areas*" and "*NC to protect, provide for and-or improve mixed use neighbourhood centre facilities*".
Features of the surrounding environment	The desk study found no records of any species for which European sites (listed in Table 2) are designated within the proposed site. Only one species (for which the European Site Wicklow SAC [002122] listed in Table 2 is designated) was recorded within 2km of the proposed development site[4], *i.e.* Otter (*Lutra lutra*), which was recorded *c.* 1.3km south-east of the proposed development site on the Shanganagh River in 1980. The proposed development site is located within the Ovoca-Vartry WFD river catchment. According to the EPA Envision Map Viewer, there are no rivers on or immediately adjacent to the proposed development site. The nearest watercourse to the proposed development site is the Glenamuck North Stream, which is located *c.* 625m north-west of the proposed development site. It appears to flow for *c.* 488m until it reaches the Glenamuck North River, which then flows for *c.* 3.2km until it converges with the Carrickmines Stream, which in turn flows for *c.* 800m until it reaches Shanganagh River, which flows for *c.* 1.6km until it reaches Killiney Bay. The Shanganagh River ultimately flows into Killiney Bay. The water quality of both the Glenamuck Stream and River is currently unknown. The water quality of the Carrickmines Stream is classified as "*Moderate*" (*i.e.* Q3-4), as recorded at the upstream overpass monitoring station of the R118. The water quality of the Shanganagh River is classified as "*Good*" (*i.e.* Q4), as recorded at the Bridge of Carns (Heron Ford Lane) monitoring station. The water quality of the Killiney Bay coastal waterbody is "*Unpolluted*". As such, there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present under the EPA's "*Trophic Status Assessment Scheme*" classification (**Environmental Protection Agency**, 2015).

[4] According to NBDC online data www.biodiversity.ie accessed 24th April 2018. This excludes NBDC records with a precision of over 1km².

	According to the GSI Map Viewer, the bedrock of the proposed site location is "*Granite with muscovite phenocrysts"* and is classified as a "*Poor Aquifer – Bedrock which is Generally Unproductive except for Local Zones*". The site is located within the catchment of the "*Wicklow*" ground waterbody. The level of groundwater vulnerability within the proposed site ranges from "*High"* in the north to "*Extreme*" in the south-east[5]'.
Description of the Proposed Development	Full details of the proposed development can be found in the applicants Planning Application. In brief, the proposed development will involve: • The construction of 6 no. 3 bed two storey houses and 7 no. 2 bed two storey houses; • The provision of 19 no. on-street car parking spaces and 6 no. bicycle spaces; • The relocation of the existing foul sewer within the site and the installation of new surface water drain; • The provision of new shared surface, with pedestrian and cycle access to adjacent lands to north/north-east; and, • Open space, landscaping, boundary treatment and all associated site development works and site services.
Defining the Zone of Influence of the Proposed Development	The Zone of Influence (ZoI) is a distance within which the proposed development could potentially affect the conservation condition of QI habitats or species. There is no set recommended distance for which European sites are considered as being relevant (*i.e.* within the ZoI of proposed works) for AA. Available guidance (DoEHLG, 2010) recommends that '*the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects*'. As a general rule of thumb, it is often considered appropriate to examine all European sites within 15km as a starting point. In some instances, where there are far reaching hydrological/hydrogeological connections, a whole river catchment or a groundwater aquifer may need to be included in determining the ZoI. All European sites within 15km of the proposed development are listed in Table 2 below and shown on Figure 1. In this case the distance of 15km exceeds the potential zone of influence of the proposed development and any likelihood of significant effects in relation to European sites beyond 15km can be ruled out.
Other existing or proposed plans or projects nearby which may lead to cumulative effects on European sites.	**Existing Habitat Loss Pressures** The proposed site does not overlap with any European sites. The habitats identified within the proposed site included improved grassland, scrub and hedgerows. None of these are habitats listed under Annex I of the Habitats Directive. This habitat is not directly or indirectly connected with any habitats within European sites (*e.g.* by groundwater). No mobile fauna species for which European sites are designated are known to use the habitats within the subject lands. There is therefore no potential for no potential for significant effects relating to habitat loss. **Existing pressures on water quality within European sites in proximity to the site** Several intertidal habitats for which European sites in Killiney Bay are designated are failing to meet favourable conservation status. For some of

[5] GSI Map Viewer. Available at http://spatial.dcenr.gov.ie/GeologicalSurvey/Groundwater/index.html Accessed 24th April 2018.

these, water pollution is considered a threat ranked as being of "*high importance*" (NPWS, 2013).

Pressures on European sites in Killiney Bay from surface/foul waters

Given the distance of the proposed road development from the nearest surface water feature (*c.* 625m), and the significant distance (*i.e. c.* 6.1km) between the subject lands and where the Shanganagh River enters Killiney Bay over which contaminants would be deposited/diluted, it is extremely unlikely that accidental pollution event during construction would occur and be of a magnitude that would affect water quality in the receiving environment, or the conservation objectives of any European sites, in Killiney Bay or the Irish Sea.

The incorporation of SUDS measures into the design of the proposed development (*i.e.* the collection of surface water runoff into on-site attenuation tanks via SUDS paving), as well as the significant distance (*i.e. c.* 6.1km) between the subject lands and where Shanganagh River enters Killiney Bay over which contaminants may be deposited/diluted, will ensure that there will be no significant impacts on water quality in the receiving environment, or the conservation objectives of any European sites, in Killiney Bay or the Irish Sea during the operational stage of the proposed development.

Foul waters from the proposed development will be discharged to the existing foul water sewer located to the west of the proposed site. From there, it will be transferred to Shanganagh WWTP for treatment prior to discharge into the Irish Sea at Killiney Bay. According to the Annual Environmental Report (Irish Water, 2017), Shanganagh WWTP has a remaining organic capacity of 56,989 P.E; therefore there is adequate capacity to treat foul effluent arising from the proposed development (*i.e.* 52 P.E.) prior to discharge into the Irish Sea at Killiney Bay.

Cumulative Water Quality Pressures

Cumulative Surface Water Pressures

The baseline environment of receiving surface waters for the proposed development, and Killiney Bay's coastal waters to which treated surface water arising from the proposed development ultimately discharges to, have been described under the heading "*Features of the Surrounding Environment*" on p.6 of this report.

Killiney Bay's coastal waters are currently of "*Unpolluted*" status, despite ongoing surface-water run-off from the Dublin area discharging to Killiney Bay. Furthermore, the pollutant content of future surface water discharges to Killiney Bay is considered likely to decrease in the long-term. This is because sustainable development including *Sustainable Urban Drainage Systems* for all new development is inherent in the current objectives of all development plans within the catchment of Shanganagh WWTP, and within the *Greater Dublin Strategic Drainage Study*. Together these objectives are considered likely to improve water quality in Killiney Bay in the future, and reduce pressures on the aquatic species and habitats within the bay.

	Cumulative Foul Water Pressures According to the Annual Environmental Report (Irish Water, 2017), Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. The current organic loading at Shanganagh WWTP is 129,011 P.E. It is noted that the capacity will not be exceeded in the next three years (Irish Water, 2017). This remaining capacity will ensure that any foul effluent arising from any other proposed/future developments will be adequately treated prior to discharge into the Irish Sea at Killiney Bay and that no impacts on European sites located within Killiney Bay will arise as a consequence of this potential impact pathway. *Conclusion for potential in-combination impacts from surface and/or foul waters* There will be no likelihood for significant effects on any European sites, and no adverse impacts to European site integrity arising from surface and foul water discharges during the construction and/or operation of the proposed development in combination with other plans or projects. This judgement was reached on the basis that: • The coastal waters in Killiney Bay are classed as "*Unpolluted*" by the EPA; • Sustainable development including *Sustainable Urban Drainage Systems* for all new development is inherent in objectives of all development plans within the catchment of Shanganagh WWTP; and, • Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. and that this will not be exceeded in the next three years (Irish Water, 2017). This will help to maintain the "*Unpolluted*" water quality status of coastal waters despite potential pressures from future development.

European sites within 15km of the proposed development site are shown in Figure 1 in Appendix A.

Table 2 Analysis of European sites within 15km.

Site name and code	Distance from Proposed Development (approximate)	Reasons for designation[6] (*= Priority Habitat) (Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).	Relevant source-pathway-receptor links between proposed development and European site? No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
Special Areas of Conservation			
Knocksink Wood SAC (000725)	Located *c.* 3.9km south of the proposed development site.	**Conservation Objectives Generic Version 4.0 (15/08/16)** **Annex I Habitats:** • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]	No. Due to the substantial terrestrial land buffer that exists between the proposed development site and the European site and the absence of any potential hydrological, hydrogeological or other impact pathway between the two.
Ballyman Glen SAC (000713)	Located *c.* 4.1km south of the proposed development site.	**Conservation Objectives Generic Version 4.0 (15/08/16)** **Annex I Habitats:** • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Alkaline fens [7230]	No. Due to the substantial terrestrial land buffer that exists between the proposed development site and the European site and the absence of any potential hydrological, hydrogeological or other impact pathway between the two.
Wicklow Mountains	Located *c.* 5.5km	**Conservation Objectives Generic Version 4.0 (15/08/16)**	No, there are no linkages between the proposed

[6] "Qualifying Interests" for SACs and "Special Conservation Interests" for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from www.npws.ie in February 2015.

[7] For significant effects to arise, there must be a risk enabled by having a 'source' (e.g. construction works at a proposed development site), a 'receptor' (e.g. a SAC), and a pathway between the source and the receptor (e.g. a watercourse connecting a proposed development site to a SAC). The identification of a pathway does not automatically mean significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. duration of construction works), the characteristics of the pathway (e.g. water quality status of watercourse receiving run-off from construction) and the characteristics of the receptor (e.g. the ecology including conservation status of the SAC reason for designation). When expert judgment determines, that significant effects are likely to arise, both the pathway, and the European site are considered "Relevant", and an Appropriate Assessment is triggered.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
SAC (002122)	south-west of the proposed development site	**Annex I Habitats:** • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] • Natural dystrophic lakes and ponds [3160] • Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] • Blanket bogs (* if active bog) [7130] • Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] • Calcareous rocky slopes with chasmophytic vegetation [8210] • Siliceous rocky slopes with chasmophytic vegetation [8220] • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] **Annex II Species:** • *Lutra lutra* (Otter) [1355]	development and the European site, as none of the QI species or habitats for which the European site has been designated occur within the subject lands. The subject lands are not connected to the European site by semi-natural habitats or by water features.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
South Dublin Bay SAC (000210)	Located *c.* 6.1km north-east of the proposed development site	**Conservation Objectives Version 1.0 (22/08/13)** **Annex I Habitats:** • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Salicornia and other annuals colonising mud and sand [1310] • Embryonic shifting dunes [2110]	There is a potential linkage between the proposed development and the European site via surface water runoff and foul effluent generated from the proposed development site ultimately discharging to Killiney Bay; however there is no possibility of significant effects, due to the following reasons: 1. Surface waters generated during construction and operation could carry silt, oils, or other chemicals into the Glenamuck North Stream, which ultimately connects to the Shanganagh River (via the Glenamuck North River and then the Carrickmines Stream), which ultimately flows into the Irish Sea at Killiney Bay. However, there will be no possibility of significant effects on the reasons for designation of the European site in view of the relevant conservation objectives. This judgement was informed by: - The significant distance (*i.e. c.* 6.1km) between the subject lands and where Shanganagh River enters Killiney Bay over which contaminants would be deposited/diluted in the drainage network and marine environment; - The incorporation of SUDS measures into the design of the proposed development, i.e. collection of surface water runoff into on-site attenuation tanks via SUDS paving; and, - The temporary nature of any discharges related to the short duration of the construction phase of the project.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
			2. Foul waters generated during operation will be treated at Shanganagh WWTP and discharged into Killiney Bay within the European site. No significant effects were predicted for the following reasons: - The coastal waters in Killiney Bay are classed as "Unpolluted" by the EPA; and, - Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. This will not be exceeded in the next three years (Irish Water, 2017).
Rockabill to Dalkey Island SAC (003000)	Located *c.* 6km east of the proposed development site	**Generic Conservation Objectives Version 4.0 (07/05/13)** **Annex I Habitats:** • Reefs [1170] **Annex II Species:** • *Phocoena phocoena* (Harbour Porpoise) [1351]	There is a potential linkage between the proposed development and the European site via surface water runoff and foul effluent generated from the proposed development site ultimately discharging to Killiney Bay; however there is no possibility of significant effects, due to the following reasons: 1. Surface waters generated during construction and operation could carry silt, oils, or other chemicals into the Glenamuck North Stream, which ultimately connects to the Shanganagh River (via the Glenamuck North River and then the Carrickmines Stream), which ultimately flows into the Irish Sea at Killiney Bay. However, there will be no possibility of significant effects on the reasons for designation of the European site in view of the relevant conservation objectives. This judgement was informed by:

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
			- The significant distance (*i.e. c.* 6.1km) between the subject lands and where Shanganagh River enters Killiney Bay over which contaminants would be deposited/diluted in the drainage network and marine environment; - The incorporation of SUDS measures into the design of the proposed development, i.e. collection of surface water runoff into on-site attenuation tanks via SUDS paving; and, - The temporary nature of any discharges related to the short duration of the construction phase of the project. 2. Foul waters generated during operation will be treated at Shanganagh WWTP and discharged into Killiney Bay within the European site. No significant effects were predicted for the following reasons: - The coastal waters in Killiney Bay are classed as "Unpolluted" by the EPA; and, - Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. This will not be exceeded in the next three years (Irish Water, 2017).
Bray Head SAC (000713)	Located *c.* 8.3km south-east of the proposed development site	**Generic Conservation Objectives Version 4.0 (15/08/16)** **Annex I Habitats :** • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • European dry heaths [4030]	There is a potential linkage between the proposed development and the European site via surface water runoff and foul effluent generated from the proposed development site ultimately discharging to Killiney Bay; however there is no possibility of significant effects, due to the following

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
			reasons: 1. Surface waters generated during construction and operation could carry silt, oils, or other chemicals into the Glenamuck North Stream, which ultimately connects to the Shanganagh River (via the Glenamuck North River and then the Carrickmines Stream), which ultimately flows into the Irish Sea at Killiney Bay. However, there will be no possibility of significant effects on the reasons for designation of the European site in view of the relevant conservation objectives. This judgement was informed by: - The significant distance (*i.e. c.* 6.1km) between the subject lands and where Shanganagh River enters Killiney Bay over which contaminants would be deposited/diluted in the drainage network and marine environment; - The incorporation of SUDS measures into the design of the proposed development, i.e. collection of surface water runoff into on-site attenuation tanks via SUDS paving; and, - The temporary nature of any discharges related to the short duration of the construction phase of the project. 2. Foul waters generated during operation will be treated at Shanganagh WWTP and discharged into Killiney Bay within the European site. No significant effects were predicted for the following reasons: - The coastal waters in Killiney Bay are classed as

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
			"Unpolluted" by the EPA; and, - Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. This will not be exceeded in the next three years (Irish Water, 2017).
North Dublin Bay SAC (000206)	Located *c.* 11.5km north of the proposed development site	**Source: Conservation Objectives Version 1.0 (06/11/13)** **Annex I Habitats:** • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • *Salicornia* and other annuals colonizing mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") [2120] • *Fixed coastal dunes with herbaceous vegetation ("grey dun es") [2130] • Humid dune slacks [2190] **Annex II Species:**	There is a potential linkage between the proposed development and the European site via surface water runoff and foul effluent generated from the proposed development site ultimately discharging to Killiney Bay; however there is no possibility of significant effects, due to the following reasons: 1. Surface waters generated during construction and operation could carry silt, oils, or other chemicals into the Glenamuck North Stream, which ultimately connects to the Shanganagh River (via the Glenamuck North River and then the Carrickmines Stream), which ultimately flows into the Irish Sea at Killiney Bay. However, there will be no possibility of significant effects on the reasons for designation of the European site in view of the relevant conservation objectives. This judgement was informed by: - The significant distance (*i.e. c.* 6.1km) between the subject lands and where Shanganagh River enters Killiney Bay over which contaminants would be deposited/diluted in the drainage network and marine environment; - The incorporation of SUDS measures into the design of the

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
		• *Petalophyllum ralfsii* (Petalwort) [1395]	proposed development, i.e. collection of surface water runoff into on-site attenuation tanks via SUDS paving; and, - The temporary nature of any discharges related to the short duration of the construction phase of the project. 2. Foul waters generated during operation will be treated at Shanganagh WWTP and discharged into Killiney Bay within the European site. No significant effects were predicted for the following reasons: - The coastal waters in Killiney Bay are classed as "Unpolluted" by the EPA; and, - Shanganagh WWTP has a remaining organic loading capacity of 56,989 P.E. This will not be exceeded in the next three years (Irish Water, 2017).
Glenasmole Valley SAC (001209)	Located *c.* 11.7km west of the proposed development site	**Conservation Objectives Generic Version 4.0 (15/08/16)** **Annex I Habitats:** • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] • Petrifying springs with tufa formation (*Cratoneurion*) [7220]	No. Due to the substantial terrestrial land buffer that exists between the proposed development site and the European site and the absence of any potential hydrological, hydrogeological or other impact pathway between the two.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
Glen of the Downs SAC (000719)	Located *c.* 11.9km south of the proposed development site	**Generic Conservation Objectives Version 4.0 (15/08/16)** **Annex I Habitats:** • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	No. Due to the substantial terrestrial land buffer that exists between the proposed development site and the European site and the absence of any potential hydrological, hydrogeological or other impact pathway between the two.
Howth Head SAC (000202)	Located *c.* 14.9km north of the proposed development site	**Conservation Objectives Version 1.0 (06/12/16)** **Annex I Habitats:** • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • European dry heaths [4030]	No. Due to the substantial terrestrial land buffer that exists between the proposed development site and the European site and the absence of any potential hydrological, hydrogeological or other impact pathway between the two.
Special Protection Areas			
Wicklow Mountains SPA (004040)	Located *c.* 5.5km south-west of the proposed development site	**Conservation Objectives Generic Version 4.0 (15/08/16)** • Merlin *Falco columbarius* [A098] • Peregrine *Falco peregrinus* [A103]	No. There is no risk of disturbance to Special Conservation Interest bird species given the relatively small scale and temporary nature of construction works associated with the proposed development, the substantial distance between the proposed development and the European site that will provide a buffer to any increased levels in noise or humans, and lack of suitable habitat for QI species associated with the development.
South Dublin Bay and River Tolka Estuary (004024)	Located *c.* 6.1km north of the proposed development site	**Conservation Objectives Version 1.0 (09/03/15)** • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] [wintering] • Oystercatcher (*Haematopus ostralegus*) [A130] [wintering] • Ringed Plover (*Charadrius hiaticula*) [A137] [wintering]	No. There is no risk of disturbance to Special Conservation Interest bird species given the relatively small scale and temporary nature of construction works associated with the proposed development, the substantial distance between the proposed development and the European site that will provide a buffer to any increased levels in noise or humans,

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
		• Grey Plover (*Pluvialis squatarola*) [A140] [wintering] • Knot (*Calidris canutus*) [A143] [wintering] • Sanderling (*Calidris alba*) [A144] [wintering] • Dunlin (*Calidris alpina*) [A149] [wintering] • Bar-tailed Godwit (*Limosa lapponica*) [A157] [wintering] • Redshank (*Tringa totanus*) [A162] [wintering] • Black-headed Gull (*Croicocephalus ridibundus*) [A179] [wintering] • Roseate Tern (*Sterna dougallii*) [A192] [passage] • Common Tern (*Sterna hirundo*) [A193] [breeding] • Arctic Tern (*Sterna paradisaea*) [A194] [passage] • Wetlands & Waterbirds [A999]	and lack of suitable habitat for QI species associated with the development.
Dalkey Islands SPA (004172)	Located *c.* 6.9km north-east of the proposed development site	**Generic Conservation Objectives Version 4.0. (15/08/16)** • Roseate Tern (*Sterna dougallii*) [A192] • Common Tern (*Sterna hirundo*)[A193] • Arctic Tern (*Sterna paradisaea*) [A194]	No. There is no risk of disturbance to Special Conservation Interest bird species given the relatively small scale and temporary nature of construction works associated with the proposed development, the substantial distance between the proposed development and the European site that will provide a buffer to any increased levels in noise or humans, and lack of suitable habitat for QI species associated with the development.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
North Bull Island SPA (004006)	Located *c.* 11.6km north of the proposed development site	**Conservation Objectives Version 1.0 (09/03/15)** • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] [wintering • Shelduck (*Tadorna tadorna*) [A048] [wintering] • Teal (*Anas crecca*) [A052] [wintering] • Pintail (*Anas acuta*) [A054] [wintering] • Shoveler (*Anas clypeata*) [A056] [wintering] • Oystercatcher (*Haematopus ostralegus*) [A130] [wintering] • Golden Plover (*Pluvialis apricaria*) [A140] [wintering] • Grey Plover (*Pluvialis squatarola*) [A141][wintering] • Knot (*Calidris canutus*) [A143] [wintering] • Sanderling (*Calidris alba*) [A144] [wintering] • Dunlin (*Calidris alpina*) [A149] [wintering] • Black-tailed Godwit (*Limosa limosa*) [A156] [wintering] • Bar-tailed Godwit (*Limosa lapponica*) [A157] [wintering] • Curlew (*Numenius arquata*) [A160] [wintering] • Redshank (*Tringa totanus*) [A162] [wintering] • Turnstone (*Arenaria interpres*) [A169] [wintering] • Black-headed Gull (*Croicocephalus ridibundus*) [A179] [wintering]	No. There is no risk of disturbance to Special Conservation Interest bird species given the relatively small scale and temporary nature of construction works associated with the proposed development, the substantial distance between the proposed development and the European site that will provide a buffer to any increased levels in noise or humans, and lack of suitable habitat for QI species associated with the development.

Table 2 Analysis of European sites within 15km.			
Site name and code	**Distance from Proposed Development (approximate)**	**Reasons for designation[6] (*= Priority Habitat)** **(Sourced from NPWS online Conservation Objectives Generic Version 5.0 (15/08/16), unless otherwise stated).**	**Relevant source-pathway-receptor links between proposed development and European site?** No sites are "Relevant" to the Proposed Development. (European sites are "Relevant" where a relevant source-pathway-receptor link[7] exists).
		• Wetlands & Waterbirds [A999]	

3 Conclusions

Following an examination, analysis and evaluation of the relevant information, including in particular, the nature of the proposed works and their potential relationship with European sites, as well as considering other plans and projects, and applying the precautionary principle, it is the professional opinion of the authors of this report that it is possible to rule out likely significant effects on all European sites. The judgement has been reached for the reasons outlined below:

Surface Water

No significant adverse effects are predicted due to the following:

- The significant distance (*i.e. c.* 6.1km) that exists between the proposed development site and where the Shanganagh River enters Killiney Bay over and the potential for mixing of pollution in the drainage network and the marine environment;
- The temporary nature of any discharges related to the short duration of the construction phase of the project; and,
- The incorporation of SUDS measures into the design of the proposed development, *i.e.* collection of surface water runoff into on-site attenuation tanks via SUDS paving, which will contain surface water run-off contaminates before entering the local drainage system; and,

Foul Water

Foul waters generated on site during operation will be treated at Shanganagh WWTP before being discharged into Killiney Bay. There is adequate capacity at Shanganagh WWTP (i.e. 56,989 P.E.) to treat foul effluent arising from the proposed development (*i.e.* of 52 P.E.), as such no significant effects are predicted.

For these reasons, it is the professional opinion of the authors of this report that the application for planning permission for the proposed development does not require an Appropriate Assessment.

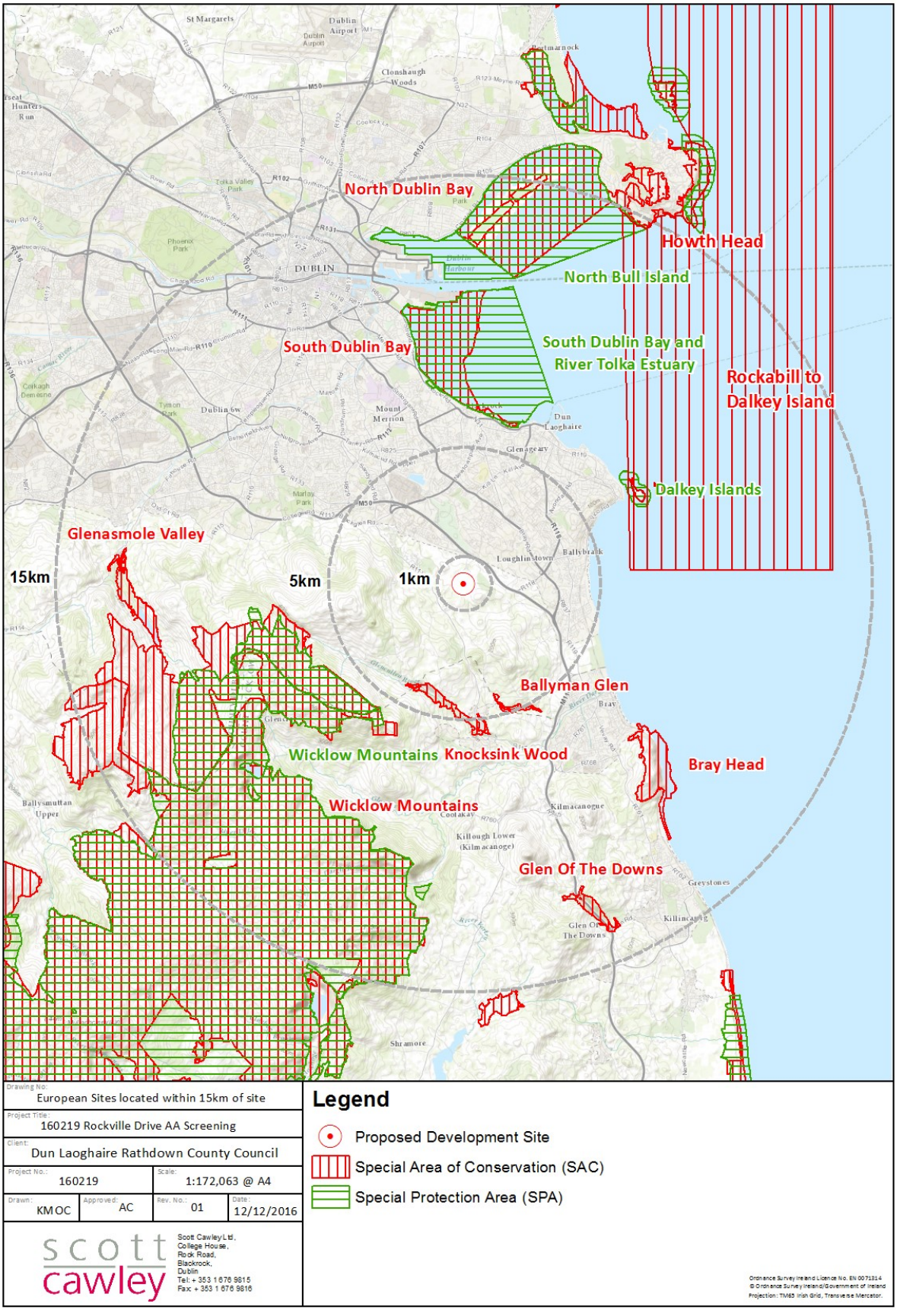
However, the authors of this report acknowledge that it is for Dún Laoghaire Rathdown County Council, as the competent authority, to carry out a screening for AA and to reach one of the following determinations:

a) AA of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites; and,

b) AA of the proposed development is not required if it can be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites.

Appendix A

Figure 1. All European sites within 15km of the site



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